JPRS-UCH-85-002 26 January 1985

USSR Report

CHEMISTRY

TABLE OF CONTENTS UCH-84-001, 6 January 1984-UCH-84-015, 19 December 1984



FBIS FOREIGN BROADCAST INFORMATION SERVICE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service (NTIS), Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in <u>Government Reports Announcements</u> issued semimonthly by the NTIS, and are listed in the <u>Monthly Catalog of U.S. Government Publications</u> issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

USSR REPORT

CONTENTS

AEROSOLS

	Ultrasound Installation for Production of Aerosols (UZUA-3) (L. S. Yes'kova-Soskovets, V. S. Sarychev; KOLLOIDNYY ZHURNAL No 5, Sep-Oct 83)	1
ANALYT	ICAL CHEMISTRY	
	Ionometric Determination of Copper in Organic Compounds (S. L. Davydova, et al.; ZHURNAL ANALITICHESKOY KHIMII, No 9, Sep 83)	2
	Indirect Polarographic Determination of Phosphorus (L. G. Kiriyak, I. I. Vataman; ZHURNAL ANALITICHESKOY KHIMII, No 9, Sep 83)	2
	Atomic-Absorption Determination of Ruthenium in Catalysts (E. V. Igoshina, B. M. Talalayev; ZHURNAL ANALITICHESKOY KHIMII, No 9, Sep 83)	3
	Patterns of Adsorption of Gold(III) by Nitrogen-Containing Chemically Modified Silicas (I. P. Alimarin, et al.; DOKLADY AKADEMII NAUK SSSR, No 3, Jul 83)	3
	Study of Extractive and Ion-Selective Properties of Macrocyclic Lactones (A. V. Bogatskiy, et al.; DOKLADY AKADEMII NAUK SSSR, No 3, Jul 83)	14
	First Results of the Study of Hydrogen Isotopic Composition of Methane in Gases of Azerbaijan and Turkmenian Mud Volcanoes	
	(V. Ye. Yerokhin, G. A. Titkov; DOKLADY AKADEMII NAUK SSSR, No 3, Jul 83)	14

CATALYSIS

Conference on Catalytic Processes Held	
(KAZAKHSTANSKAYA PRAVDA, 22 Sep 83)	,
Influence of Alkali Metals on Properties of Aluminoplatinum Catalysts in Dehydrogenation of n-Dodecane	
(A. M. Moroz, et al.; ZHURNAL PRIKLADNOY KHIMII.	
No 9, Sep 83)	7
Liquid Phase Hydrogenation of Acetylene in Pyrogas in Presence of Heterogeneous Catalysts at Atmospheric	
Pressure	
(V. A. Men'shchikov, et al.; ZHURNAL PRIKLADNOY KHIMII,	8
No 9, Sep 83)	c
Influence of Hydrogen Pressure on Rate and Mechanism of	
Hydrogenation of Difurfurylidene Acetone on Skeletal	
Nickel Titanium Aluminum Catalyst	
(R. Mat'yakubov, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	8
Catalytic Oxyethylation of Liquid Ammonia in Presence of Cationite Wofatite KPS	
(A. D. Stoyanov, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	9
Optimal Distribution of Active Component in Cupric Oxide Crust Final Combustion Catalyst	
(L. N. Kas'yanova, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	9
Study of Aluminoplatinum Catalyst Modified by Addition of Alkali Elements by IR Spectroscopy and EPR Methods	
(S. B. Kogan, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	10
Influence of Preparation Conditions on Phase Composition and Macrostructure of Aluminum-Molybdenum-Chromium Catalysts	
(E. I. El'bert, et al.; ZHURNAL PRIKLADNOY KHIMII,	20
No 9, Sep 83)	10
Isobutylene Oligomerization on Oxides, Part 3: Catalytic Properties of Aluminum/Rhenium Catalysts	
(Yu. S. Khodakov, et al.; IZVESTIYA AKADEMII NAUK	
SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	11
Ethane Aromatization on Metallozeolite Catalysts	
(O. V. Bragin, et al.; IZVESTIYA AKADEMII NAUK SSSR:	
SERIVA KHIMICHESKAYA No Q Sep 83)	12

Transformation of Isobutylene on Decationized Super-High	
Silicon Zeolite Doped With Vanadium	
(D. A. Kondrat'yev, et al.; 1ZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	31
BESSA: BERTIA KHIMICHESKATA, NO 9, Sep 03/	12
Effects of pH and Modifier on Enantioselective Hydrogenation	
of Ethyl Acetoacetate on Copper-Nickel Catalysts	
(V. V. Chernysheva, Ye. I. Klabunovskiy; IZVESTIYA	
AKADEMII TAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	13
Properties of Co-Al ₂ O ₃ Catalysts in Hydrocarbon Synthesis From CO and H ₂	
(Khoang Chong Iyem, et al.; IZVESTIYA AKADEMII NAUK SSSR:SERIYA KHIMICHESKAYA, No 9, Sep 83)	13
booki baatan manababana, no y, bep os/iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	13
CHEMICAL INDUSTRY	
Shipment of Chemical Plant Equipment Described	
(SOVETSKAYA ROSSIYA, 23 Jun 83)	14
, , , , , , , , , , , , , , , , , , , ,	
Increased Use of Synthetic Chemicals in Production	
(EKONOMICHESKAYA GAZETA, No 40, Oct 83)	15
Implementation of Design Decisions for Waste-Free Technologi- cal Systems at Pervomaysk Chemical Plant (M. I. Kiyevskiy, V. N. Yevstratov; KHIMICHESKAYA	
TEKHNOLOGIYA, No 5, Sep-Oct 83)	22
COMBUSTION	
Determination of Fire and Explosive Properties of Some	
Agents Used in Production of Medicines	
(Yu. F. Karabanov, M. I. Chastukhina; KHIMIKO-	
FARMATSEVTICHESKIY ZHURNAL, No 8, Aug 83)	23
BI BATTO AAUDIT OTTO V	
ELECTROCHEMISTRY	
Ionoselective Solid Phase Electrode Sensitive to Ammonium	
Ions, Electrochemical Properties	-1
(Yu. G. Vlasov, et al.; ELEKTROKHIMIYA, No 9, Jun 83)	24
Radiochemical Study of Anode Dissolution of ORTA at High	
Positive Potentials, Aqueous and Alcoholic Solutions	
(L. A. Mirkind, et al.; ELEKTROKHIMIYA, No 9, Jun 83)	51
Electrolytic Reduction of Lead Chloride Dispersed in Polymer	
Matrix	
(L. I. Lyamina, et al.; ELEKTROKHIMIYA, No 9, Jun 83)	25

Pore Development During Reversible Electric Breakthrough of Bi-Layer Lipid Membranes	
(L. V. Chernomordik, et al.; ELEKTROKHIMIYA, No 9, Jun 83)	25
Solid Contact Ion-Selective Electrodes Based on Neutral Complexing Agents	
(O. K. Stefanova, et al.; ELEKTROKHIMIYA, No 9, Jun 83)	26
FERTILIZERS	
New Fertilizer Plant	
(L. Leont'yeva; SOTSIALISTICHESKAYA INDUSTRIYA, 2 Oct 83)	27
Problems in Construction of Ammonia Production Complex Cited (L. Ambinder; SOTSIALISTICHESKAYA INDUSTRIYA,	
22 Sep 83)	28
State Committee Reviews Progress in Fertilizer Industry (EKONOMICHESKAYA GAZETA, No 42, Oct 83)	30
INORGANIC COMPOUNDS	
Speed of Ultrasound and Adiabatic Compressibility in Melted Mixtures of Uranium Tetrachloride With Potassium Chloride (Yu. S. Kuznetsov, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	36
Vapor Phase Synthesis of Gallium Phosphide	
(A. A. Lobanov, V. N. Severtsev; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	26
TEKHNOLOGIYA, No 8, Aug 83)	36
ION EXCHANGE PHENOMENA	
Synthesis and Study of Cation Exchange Resin Based on Furfurol	
(R. S. Khakimov, et al.; ZHURNAL PRIKLADNOY KHIMII, No 9, Sep 83)	30
	30
Synthesis and Study of Cation Exchange Resins Based on Furfuryl Alcohol	
(R. S. Khakimov, et al.; ZHURNAL PRIKLADNOY KHIMII,	
No 9, Sep 83)	39
NITROGEN COMPOUNDS	
Phototropy of Quaternary Ammonium Salts of N,N'-Bis-	
Substituted Diimides of 1,4,5,8-Naphthalenetetracarboxylic Acid Containing Benzenesulfonate Anions	
(G. M. Kheyfets; ZHURNAL ORGANICHESKOY KHIMII, No 9,	40
500 Oll	40

ORGANOMETALLIC COMPOUNDS

Research in Area of Synthesis of Polyhaloid Organoselenium and Organotellurium Compounds (E. Sh. Mamedov, et al.; DOKLADY AKADEMII NAUK	
AZERBAYDZHANSKOY SSR, No 4, Jul-Aug 83)	41
Reactivity of Organic Compounds of Tin, Part 26: Reaction of (Carboethoxymethyl) Triethyl Tin With Aldehydes, Catalyzed by Halide Ions, as a Method of Producing 3-Acetoxycarboxylic Acid Esters	
(I. P. Beletskaya, et al.; ZHURNAL ORGANICHESKOY KHIMII, No 9, Sep 83)	41
ORGANOPHOSPHORUS COMPOUNDS	
Reaction of Tetraalkylpyrophosphites and Diethylacylphosphite With Trifluoroacetic Acid: Trifluoroacylphosphites and Trifluoroketophosphonites	
(Ye. N. Ofitserov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	43
Alcohols and Acids (I. V. Konovalova, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	43
Interaction of 4,5-Benzo-1,3,2-Diheterophospholanes With Amines (M. A. Pudovik, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	44
Interaction of Phosphorus Acid Esters With Trivalent Phosphorus Chlorides	
(T. Kh. Gazizov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	45
Reactivity of Iodine and Interhalides With Substituted Allenephosphonic Acid Esters (Kh. M. Angelov, et al.; ZHURNAL OBSHCHEY KHIMII,	
No 9, Sep 83)	45
Optically Active a-Phosphorylated Benzylisocyanates (B. N. Kozhushko, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	46
Photoelectron Spectra and Electron Structure of Organo- phosphorus Compound: Compounds of Coordinated Phosphorus With Phosphorus-Sulfur Bond	
(V. V. Zverev, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	47

Acid Esters, Part 7: Study of Kinetics and Mechanism of Reaction of 1-Iodoheptafluoropropane With Trialkylphosphites (V. I. Shibayev, et al.; ZHURNAL OBSHCHEY KHIMII, No 9,	
Sep 83)	47
Interaction of Phosphorus Acid Esters With Perfluorinated Carboxylic Acid Anhydrides: Calorimetry, IR Spectra (S. F. Aleynikov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	48
Interaction of P (III) Acid Esters With Carbon Tetrachloride, Part 4: Degree of Charge Transfer in DA-Complexes (V. I. Krutikov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	49
Dissociation of Oxyethylidenediphosphonic Acid in Aqueous Solutions	
(V. P. Vasil'yev, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	49
Interaction of Polyfluorinated Aliphatic Aldehydes With Trivalent Phosphorus Compounds: 2,2,2-Trialkoxy-2,2- Dihydro-3,5-Bispolyfluoroalkyl-1,4,2-Dioxaphospholanes (L. N. Markovskiy, et al.; ZHURNAL OBSHCHEY KHIMII No 9, Sep 83)	50
Synthesis and Properties of Pyrocatechinphosphonoacetic Acid Esters (R. K. Ismagilov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	50
Reaction of Phosphorous Acid Hexaethyltriamide With Vicinal Dibromides and 1,2,3-Tribromopropane. A Convenient Method of Debromination (L. I. Mizrakh, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	51
Hydrolysis of the Pyrophosphate Bond in Oxidation-Reduction Systems (A. Z. Muradov, A. A. Yasnikov; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	51
Phosphorus-Containing Crowns, Part 5: Extraction and Spectral Properties of Polymorphous Modifications of Dibenzotri- phenylphosphazophosphonyl-14-Crown-5 (A. M. Pinchuk, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	52
Study of Reactions of Adducts of Phosphorus Pentachloride and Styrene With Arsenic Trifluoride (S. V. Fridland, et al.; ZHURNAL OBSHCHEY KHIMII, No 9. Sep 83)	. 53

77Se and 31P NMR Spectra of Organoselenophosphorus Compounds (K. M. Yenikeyev, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	53
Synthesis of Phosphorylated Hydantoins (P. S. Khokhlov, et al.; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	54
Reaction of Cyclohexene With Organylchlorophosphonium Hexafluorophosphates (V. K. Dmitriyev, B. V. Timokhin; ZHURNAL OBSHCHEY KHIMII, No 9, Sep 83)	54
Phosphorotropic Tautomerism in Series of Phosphorylated and Thiophosphorylated 2-Ethylaminodihydro-1,3-Thiazines (L. Ya. Bogel'fer, et al.; DOKLADY AKADEMII NAUK SSSR, No 3, Jul 83)	55
Reaction of Mannitol With PCl ₃ and Product Structure (I. A., Litvinov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	55
Reactions of Alkylthiochlorophosphonites and Dialkylchloro- dithiophosphites With Carbonyl Compounds (N. A. Kardanov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	56
β-Phosphorylated Enamines (N. N. Mel'nikov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	56
Phosphorylation and Thiophosphorylation of Aminothiadiazoles, Aminooxadiazoles and Aminooxazolines (N. N. Mel'nikov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	57
Phosphorylated and Thiophosphorylated 3-Amino-1,4-Benzothiazine Derivatives (N. N. Mel'nikov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	58
Unusual Reactivity of Dialkylacetyl Dithiophosphites With Acyl Halides and Acids (O. G. Sinyashin, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	58
Isomerization of P(III) Thioesters in Presence of Halosilanes (V. A. Al'fonsov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	59
Phosphorylation of Certain Organic Luminophores (I. V. Komlev, et al.; ZHURNAL OBSHCHEY KHIMII, No &,	50

Electron Donor and Acceptor Functions of Physiologically Active and Model Compounds, Part 4: Phosphinates, Phosphonates and Phosphates (O. A. Rayevskiy, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	60
Phosphorylated Nitrogenous Heterocyclic Compounds, Part 9: Phosphonoalkylated Imidazoles	
(G. L. Matevosyan, P. M. Zavlin; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	60
Phosphorylated Thioacetoacetic Ester (T. V. Smirnova, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	61
PC1 Radicals in Reactions of O-Quinones With Phosphorus	
Trichloride (Ye. S. Klimov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	61
Reaction of Perfluoroiodoalkanes With P(III) Acid Esters: Part 6: Synthesis of Trifluoromethyl and Heptafluoro- propyl Phosphonates	
(V. I. Shibayev, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	62
Reaction of Silicon Subgroup Heteroorganic Peroxides With Phosphates and Phosphites (V. V. Gorbatov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	62
3-Thiocyanophenothiazine Derivatives, Part 1: Synthesis and Phosphorylation of 3-Thiocyano-10-Haloacylphenothiazines (D. Kh. Yarmukhametova, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	63
Synthesis of Biheterocyclic Ketophosphorinanes (G. M. Isayeva, et al.; ZHURNAL OBSHCHEY KHIMII, No 8,	
Aug 83) Dithiophosphate Group Migration in N-Alkyl-N'-Arylcarbodiimides	63
(V. N. Fetyukhin, M. V. Vovk; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	64
Phosphorylated 1,1-Diphenylhydrazyl Radicals (P. P. Kornuta, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	64
Reactivity of Phosphorus-Containing Disulfides: Reaction of Bis(Diisopropoxy- and Diphenylthiophosphoryl) Disulfides With Aniline and m-Phenylenediamine	
(B. A. Khaskin, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	65

Silicon-Containing Ammonium and Phosphonium Salts	
(V. S. Brovko, et al.; ZHURNAL OESHCHEY KHIMII, No 8,	
Aug 83)	65
Reaction of Cyclic Trimethylsilyl Phosphites With Benzil	
(V. V. Ovchinnikov, et al.; ZHURNAL OBSHCHEY KHIMJI, No 8,	
Aug 83)	66
Phosphorylation of Tetrahydropyran Derivatives	
(S. V. Fridland, L. I. Lapteva; ZHURNAL OBSHCHEY	
KHIMII, No 8, Aug 83)	66
Reaction of Halomethylnaphthoquinones With Triphenylphosphine	
(V. N. Listvan; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	67
Pyrazole-, Isoxazole- and Triazole- Phosphonium Salts	
(I. V. Megera; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 83)	67
PESTICIDES	
Failures in Construction of New Pesticide Plant	
(G. Rzayev, et al.; VYSHKA, 2 Oct 83)	68
PETROLEUM PROCESSING TECHNOLOGY	
Experience in Operation of Reaction Tubes in Natural Gas Conversion Furnaces	
(L. A. Kadygrov, A. V. Stepanov; KHIMICHESKAYA	
TEKHNOLOGIYA, No 5, Sep-Oct 83)	73
PHARMACOLOGY AND TOXICOLOGY	
Study of Mechanisms of Antimalarial Action of Chloroquine	
and Dabequine: Formation of Complexes With Hemin	
(L. N. Grinberg, N. E. Lukmanova; KHIMIKO-	
FARMATSEVTICHESKIY ZHURNAL, No 8, Aug 83)	74
Study of Cumulative Properties and Distribution of a New	
Immunodepressive Compound	
(U. A. Aripov, et al.; KHIMIKO-FARMATSEVTICHESKIY	
ZHURNAL, No 8, Aug 83)	74
Radioprotective Properties of Some N-Substituted 1-M-	
Hydroxyphenyl-2-Aminoethanols	
(T. A. Alpatova, et al.; KHIMIKO-FARMATSEVTICHESKIY	75
ABURDAL NO O BUR OSI	1 3

POLYMERS AND POLYMERIZATION

Determination of Modulus of Elasticity During Flexure of Elastic and Solid Polymers	
(V. G. Babkin, T. A. Yaroslavtsevu; KAUCHUK I REZINA, No 9, Sep 83)	76
Radiation Treatment of Polyethylene and Polymethylmethacrylate (Ye. I. Knizhnik, et al.; KHIMICHESKAYA TEKHNOLOGIYA, No 5, Sep-Oct 83)	76
Study of Properties of Polycaproamide Fibers Modified by Simultaneous Grafting of Polyacrylonitrile and Polymethacrylic Acid	
(N. Yu. Pimonenko, et al.; KHIMICHESKAYA TEKHNOLOGIYA, No 5, Sep-Oct 83)	77
Diffusion Mechanism of Curing and Structure of Composite Materials Reinforced With Chemical Fibers (V. N. Studentsov; ZHURNAL PRIKLADNOY KHIMII, No 9, Sep 83).	77
Kinetics of Butyl Acrylate Polymerization With Porphyrin- Cobalt in Inductive Period	.,
(A. G. Oganova, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	78
Reaction of Lithium Diphenyl Phosphide With Monosilacyclo- butanes	
(N. V. Ushakov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	78
Influence of Surface Modification of Metals Upon Adhesive Properties of the System Steel Type 3 Plus Copolymer of Ethylene and Vinylacetate	
(O. I. Chernikov, et al.; KOLLOIDNYY ZHURNAL, No 5, Sep-Oct 83)	79
Effects of Liquid Crystal Microencapsulation Conditions on Properties of Microcapsure Membranes (K. N. Zheleznov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 8,	
Aug 83)	79
Synthesis and Polymerization of Monomeric Quaternary Salt N,N-Dimethylaminoethyl Methacrylate With Haloalkyls (A. S. Maksumova, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 8, Aug 83)	80
Polymerization of Acrylate Oligoesters (R. Sh. Frenkel', et al., IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA,	
No 8. Aug 83)	80

RADIATION CHEMISTRY

	Radiation Processes in OH-Doped Maggesium Oxide Monocrystals (V. I. Spitsyn, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 9, Sep 83)	81
RUBBER	AND ELASTOMERS	
	Synthesis and Application of Butadiene-Methylvinylpyridine Latex With Globular Heterogeneity (I. L. Shmurak, et al.; KAUCHUK I REZINA, No 9, Sep 83)	82
	Novel Carboxyl-Group-Containing Chloroprene Latex (A. V. Gevorkyan, et al.; KAUCHUK I REZINA, No 9, Sep 83)	82
	Thermovulcanization of Rubbers and Resin Mixtures at High Pressures (G. V. Vinogradov, et al.; KAUCHUK I REZINA, No 9, Sep 83)	83
	Study of Properties of Tire Compositions and Resins Based on Soluble Butadiene-Styrene Rubbers DSSK-18 With Variable Structures (F. Ye. Kuperman, et al.; KAUCHUK I REZINA, No 9, Sep 83)	83
	Use of Zinc Isobutylisooctyldithiophosphate in Light Rubbers Based on SKI-3 (V. I. Ovcharov, et al.; KAUCHUK I REZINA, No 9, Sep 83)	84
	Analysis of Performance Criteria of Tubeless Tires 400.00-57 on 180 T Capacity Automatic Dump Trucks Under Conditions Existing in Southern Yakutsk Coal Complex (B. A. Indeykin, et al.; KAUCHUK I REZINA, No 9,	01
	Sep 83)	84

USSR REPORT

CONTENTS

ANALYTICAL CHEMISTRY

Effect of Solution Composition on Intensity of Intraresonant Laser Absorption by Eu ³⁺ Ion
(A. M. Udartsev, S. M. Mashakova, et al.;
KHIMICHESKAYA FIZIKA, No 10, Oct 83)
Spectral Measurement of Nitrogen, Hydrogen and Chlorine in Carbon Dioxide Using Condensed Spark Plasma
(A. A. Zheleznova, N. N. Yarmukhamedova, et al.:
VESTNIK MOSKOVSKOGO UNIVERSITETA, SERIYA 2: KHIMIYA,
No 5, Sep-Oct 83)
Evaluation of Krasnogorsk Coal Suitability for Agglomeration of Phosphorites
(V. V. Puzankov, G. A. Petokhin, et al.; KOKS I
KHIMIYA, No 10, Oct 83)
Analytical Possibilities of Carma-Activation Analysis Based on Short-Lived Isotopes
(M. Leonard, Yu. T. Martynov, et al.; ZHURNAL
ANALITICHESKOY KHIMII, No 10, Oct 83)
Increase of Specificity and Stability of Dual Flame Detector of Surface Ionization
(Ye. Ye. Sotnikov, N. I. Babanov, et al.; ZHURNAL
ANALITICHESKOY KHIMII, No 10, Oct 83)
Radiochemical Determination of Bromine With Aid of Radionuclide 1311
(V. 1. Shamayev, A. O. Malysheva; ZHURNAL ANALITICHESKOY
KHD II, No 10, Oct 83)

	Study of Precipitation of Aminoglycoside Antibiotics by AZO Compounds	
	(N. M. Alykov, N. A. Feklistova, et al.; ZHURNAL	
	ANALITICHESKOY KHIMII, No 10, Oct 83)	4
	Study of Extraction Properties of Unsaturated Amines,	
	Part 2: Extraction of Uranium(VI) From Sulfuric Acid	
	Solution With Amines of Piperilene Derivatives	
	(N. Timofeyeva, Kh. Rang, et al.; IZVESTIYA	
	AKADEMII KAUK ESTONSKOY SSR, No 4, Oct-Nov-Dec 83)	5
CATALY	rsis	
	Catalytic Properties of Complexes Formed by Polyethyleneimine	
	With Rhodium and Ruthenium Chloride	
	(R. Sh. Abubakirov, G. A. Sytov, et al.; DOKLADY AKADEMII	
	NAUK SSSR, No 6, Oct 83)	6
	Results of Industrial Research Studies of Catalytic Purification	
	Method of Gaseous Discharge	
	(A. S. Malysh, K. Z. Kupryakhina, et al.; KOKS I	
	KHIMIYA, No 10, Oct 83)	7
	Effect of High Static Pressures in Combination With Shearing	
	Deformations on Activity of Pt/MePe, Type Catalysts	
	(Me- Mg, Ca, Sr, Ba)	
	(S. S. Batsanov, V. P. Bokarev, et al.; KHIMICHESKAYA	
	FIZIKA, No 10, Oct 83)	7
	Active Electrodes Based on Skeletal Nickel-Cobalt Catalyst for	
	Water Electrolysis	
	(R. Kh. Burshteyn, I. Ye. Barbashova, et al.;	
	ELEKTROKHIMIYA, No 10, Oct 83)	8
	Adsorption and Catalytic Properties of Iron-Coproporphyrin III	
	Complex in Octane/Water Interface	
	(A. G. Volkov, M. I. Bibikova, et al.; ELEKTROKHIMIYA,	
	No 10, Oct 83)	8
	Oxocationic Salts as Catalysts in Production of Furan Aldehyde	
	(V. I. Krupenskiy; KHIMIYA DREVESINY, No 5, Sep-Oct 83)	9
	Hydrogen Adsorption on Skeletal Catalysts of Palladium-	
	Rhodium Systems	
	(T. M. Grishina, L. I. Lazareva, et al.; VESTNIK	
	MOSKOVSKOGO UNIVERSITETA, SERIYA 2: KHIMIYA, No 5,	
	Sep-Oct 83)	9
	Behavior of Raney Cu-Pd Catalysts in Enantioselective	
	Hydrogenation	
	(A. A. Vedenyapin, T. I. Kuznetsova, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
	No 10, Oct 83)	10
		-

	13c and 170 NMR Spectroscopy of Selected a-Chloroethers	
	(B. A. Arbuzov, A. A. Bredikhin, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 10,	
	Oct 83)	11
	Molecular and Crystalline Structure of 4,6-Dimethyl-2,6- Diphenyl-1-Phospha-2,3-Diazabicyclo[3.1.0]Hexene-3	
	(I. A. Litvinov, Yu. T. Struchkov, et al.;	
	IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	11
	No 10, Oct 83)	11
	Catalysis by Platinum Complexes of Alcohol Oxidation in ROH-H2 O-I2 Systems	
	(Yu. N. Kukushkin, V. N. Demidov, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 10, Oct 83)	12
CHEMIC	CAL INDUSTRY	
	Integrated Special-Purpose Programs for Chemistry (Kirill Mikhaylovich Dyumayev; KOMPLEKSNYYE TSELEVYYE PROGRAMMY PO KHIMII (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE:	
	SERIYA "KHIMIYA"), No 10, Oct 83)	13
COAL C	CASIFICATION	
	Comparative Characteristics of Coking Coals From North-	
	Eastern Regions of USSR	20
	(V. P. Kurbatov; KOKS I KHIMIYA, No 10, Oct 83)	25
	Evaluation of Gas-Dynamic Properties of Lump Coal Used for	
	Preparation of Non-Blast Furnace Coke in Shaft Furnaces	
	(G. I. Yenik, A. I. Ol'fert, et al.; KOKS I KKIMIYA, No 10, Oct 83)	25
	Use of Hydrogen Cyanide of Sulfur-Purification-Shop	
	Regenerator Gas for Ammonium Thiocyanate Production	26
	(N. K. Smol'yakov; KOKS I KHIMIYA, No 11, Nov 83)	26
	Magnetic Apparatus for By-Product Coke Industry	
,	(I. M. Glushchenko, S. P. Gishayenko, et al.; KOKS I	
	KHIMIYA, No 11, Nov 83)	27
	Chemistry of Removal of Hydrogen Cyanide From Coke-Oven Gas	
	With Production of Ethylenethiourea	
* .	(L. F. Marakhovskiy, A. I. Brodovich, et al.; KOKS	
	I KHIMIYA, No 11, Nov 83)	27
	Effect of Mineral Portion of Dictyonema Shale on Yield and	
	Composition of Its Thermal Decomposition Products	
	(V. Vysotskaya, K. Urov; IZVESTIYA AKADEMII NAUK	
	FSTONSKOY SSP. No. 4. Oct-Nov-Dec 83)	28

Nitric Acid Oxidation of Activated Concentrates of Organic Matter of Kukersite Oil Shale	
(R. Veski, Leyda Metsik, et al.; IZVESTIYA AKADEMII NAUK ESTONSKOY SSR, No 4, Oct-Nov-Dec 83)	28
COMBUSTION	
Hydrogen Oxidation Near First Threshold of Ignition in Metal Reactors	
(Ye. N. Aleksandrov, V. S. Arutyunov, et al.; ZHURNAL FIZICHESKOY KHIMII, No 10, Oct 83)	30
Oxidation of Hydrogen Near First Threshold of Ignition in Kinetic Region of Breaking of Chains	
(Ye. N. Aleksandrov, V. S. Arutyunov, et al.; ZHURNAL FIZICHESKOY KHIMII, No 10, Oct 83)	31
ELECTROCHEMISTRY	
Role of Water in Methanol Chemosorption and Dehydrogenation Processes Over Platinum	
(B. M. Lotvin, Yu. B. Vasil'yev; ELEKTROKHIMIYA, No 10, Oct 83)	32
Breakdown of Platinum Electrode Coating During Cathode Polarization in Sea Water	
(L. A. Mikhaylova, S. D. Khodkevich, et al.; ELEKTROKHIMIYA, No 10, Oct 83)	32
Electrosynthesis of Organic Compounds Using Solid Polymer Electrolyte	
(V. A. Grinberg, V. N. Zhuravleva, et al.; ELEKTROKHIMIYA, No 10, Oct 83)	33
FERTILIZER	
Update on Construction of Carbamide Plant in Nevinnomyssk (Stavropol Kray)	
(L. Aleynik; SOTSIALISTICHESKAYA INDUSTRIYA, 28 Oct 83)	34
One More Complex for Carbamide Production Being Readied (N. Styazhkin; SOTSIALISTICHESKAYA INDUSTRIYA,	
1 Nov 83)	37
Carbamide Production To Follow Ammonia Production (A. Prigodich; STROITEL'NAYA GAZETA, 7 Oct 83)	39

NITROGEN COMPOUNDS

	Complex Formation by Organoboron Compounds, Part 23: Complexing of Triarylborons With 4-Amino-1,2,4-Triazole	
	(G. A. Yuzhakova, M. I. Belonovich, et al.; ZHURNAL OBSHCHEY KHIMII, No 10, Oct 83)	40
ORGANO	PHOSPHORUS COMPOUNDS	
	Novel Type of Phosphorus-Containing Betaines: Internal Salts of Acid-Substituted Aminovinyl Phosphates	
	(Yu. G. Gololobov, T. V. Kim, et al.; DOKLADY AKADEMII NAUK SSSR, No 6, Oct 83)	41
	Heterogeneous Catalysis During Adsorption of Organophosphoric	
	Compounds on Carbon Sorbents	
	(S. S. Mikhaylov, I. G. Shcherbak, et al.; DOKLADY AKADEMII NAUK SSSR, No 4, Oct 83)	41
	ANADERII NAUK SSSK, NO 4, OCT 03/	41
	Synthesis of Phosphorylated Indoles Using m-Aminophenyl Phosphonate	
	(P. A. Gurevich, P. A. Stepanov, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 10, Oct 83)	42
	Synthesis of 6-Indolylphosphonates	
	(P. A. Gurevich, P. A. Stepanov, et al.; ZHUPNAL	
	OBSHCHEY KHIMII, No 10, Oct 83)	43
	Reaction of Phosphorylated Alcohols and Acetals With Phosphorus Pentoxide	
	(M. B. Gazizov, R. A. Khayrullin, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 10, Oct 83)	43
	Reaction of Dialkyl Phosphites with o-Naphthoquinone	
	(A. A. Kutyrev, V. V. Moskva; ZHURNAL OBSHCHEY KHIMII,	
	No 10, Oct 83)	44
	Aromatic Nitroso Compounds in Kabachnik-Fields Reaction	
	(G. L. Matevosyan, A. V. Zhuravlev, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 10, Oct 83)	44
PETROL	EUM PROCESSING TECHNOLOGY	
	Excessive Laboratory Equipment Purchasing Criticized	
	(SOTSIALISTICHESKAYA INDUSTRIYA, 29 Oct 83)	45
	Use of Catalytic Cracking Apparatus at Novo-Yaroslavskiy	
	Petroleum Processing Plant	
	(Ye. N. Zayashnikov; KHIMIYA I TEKHNOLOGIYA TOPLIV I	
	MASEL, No 10, Oct 83)	46

	Implementing New Catalyst Regeneration Technology at 1A/1M Unit	
	(V. A. Stankevich, V. I. Markhevka, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	47
	Operation of 1A/1M Apparatus With a Two-Stage Procedure	
	(Ye. I. Pryanikov, A. M. Guseynov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	47
	Operation of 1A/1M Apparatus at Ryazan Petroleum Processing Plant	
	(Yu. I. Sych, G. G. Musiyenko, et al.; KHIMJYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	48
	Operation of 43-103 Apparatus After Redesign of Dust-Collecting System	
	(A. A. Aksenov, K. S. Malyushchitskaya, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	48
	Two-Stage Catalytic Cracking	
	(V. I. Markhevka, V. A. Stankevich, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	49
	New Microspherical Cracking Catalysts	
	(B. K. Nefedov, T. Kh. Melik-Akhnazarov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	50
	Perfecting Catalyst Transfer at 1A/1M Installations (B. S. Nazarenko, O. K. Odintsov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 10, Oct 83)	50
PHARAMO	COLOGY AND TOXICOLOGY	
	Cerimetric Determination of Imiphos	
	(N. M. Turkevich, R. T. Dmitrishin; FARMATSIYA, No 5,	
	Sep-Oct 83)	52
	Cerimetric Determination of Some Drugs Containing Phenolic Hydroxyl and Methoxy Group	
	(I. P. Koka; FARMATSIYA, No 5, Sep-Oct 83)	52
	Protective and Therspeutic Properties of H ₆ CoQ ₄ and CoQ ₉ Ubiquinones in Gamma Irradiation	
	(T. Yu. Il'yuchenok, K. S. Shadurskiy, et al.; FARMAKOLOGIYA I TOKSIKOLOGIYA, No 6, Nov-Dec 83)	53
POLYMER	S AND POLYMERIZATION	
	Composition Materials	
	(EKONOMICHESKAYA GAZETA, No 45, Nov 83)	54

Polyethylene as a Challenge to Teflon (SOTSIALISTICHESKAYA INDUSTRIYA, 3 Nov 83)	50
(SOISTALISTICHESKAIA INDUSTRITA, 5 NOV 63)	3.
Reaction Between Oligomers and Powdered Diamond Surface	
Containing Reactive Groups	
(M. T. Bryk, N. N. Bagley, et al.; DOKLADY AKADEMII	
NAUK SSSR, No 6, Oct 83)	60
Synthesis and Structure of Tin Organic Polymers	
(V. F. Mishchenko, V. A. Zubov; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 10, Oct 83)	61
Destruction of Surgical Sutures From Polyvinyl Alcohol	
(L. L. Razumova, A. A. Veretennikova, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 10, Oct 83)	61
Formation Characteristics of Supermolecular Structure in Films	
Obtained From Dianhydride of 3,3',4,4'-Diphenyloxidetetra-	
Carboxylic Acid and Various Diamines	
(A. V. Sidorovich, Yu. G. Baklagina, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 10, Oct 83)	62
Use of Magnesiumorganic Compounds and Alkylaluminummagnesium	
Complexes in Ziegler Catalysts for Synthesis of Cis-1,4-	
Polyisoprene	
(L. S. Bresler, K. V. Kisin, et al.;	
VYSOKOMOLIKULYARNYYE SOYEDINENIYA, No 10, Oct 83)	62
Polymerization in Butadiene-Styrene System Under Influence of	
Lithiumorganic Active Centers in Presence of Subcatalytic	
Quantities of Tetramethylethylenediamine	
(B. L. Yerusalimskiy, A. A. Davidyan, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 10, Oct 83)	63
Study of Rheological Properties of Polymer Melts in Presence	
of Hydrostatic Pressure	
(O. Ye. Ol'khovik, V. G. Baranov; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 10, Oct 83)	63
Synthesis of Vinyl Oligoesters	
(V. G. Neroznik, B. G. Zadontsev, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 10, Oct 83)	64
Properties of Polyurethane Ionomers Containing Anionic Groups	
in Basic Chain	
(A. P. Grekov, N. I. Levchenko, et al.; UKRAINSKIY	
KHIMICHESKIY ZHURNAL, No 9, Sep 83)	65

Adsorption Polymerization of Methylmethacrylate on		
Dehydroxylated Surface of a-Al ₂ O ₂		
(P. N. Logvinenko; UKRAINŠKIY KHIMICHESKIY ZHURNAL,		
No 9, Sep 83)	65	
Siliconorganic Carbofunctional Oligomers		
(N. N. Laskovenko; UKRAINSKIY KHIMICHESKIY ZHURNAL,		
No 9, Sep 83)	66	
No 3, Sep 63)	66	
Diffusion Desorption of Plasticizers as Main Factor of Aging		
of Polyvinyl Chloride Plastic Compounds		
(R. P. Braginskiy; DOKLADY AKADEMII NAUK SSSR, No 4,		
Oct 83)	66	
Radiation Grafting Polymerization of Acrylic Acid on Polyimide		
Film		
(T. I. Reshetilova, L. P. Sidorova, et al.;		
PLASTICHESKIYE MASSY, No 10, Oct 83)	67	
Physical-Mechanical Characteristics of Metallized ABS Plastics		
(V. I. Zolotova, N. K. Fadeyeva; PLASTICHESKIYE MASSY,		
No 10, Oct 83)	67	
NO 10, OCC 03/	07	
Structure Formation of Siliconorganic Binders on Surface of		
Fiberglass Fillers		
(E. A. Dzhavakhishvili, B. I. D'yachenko, et al.;		
PLASTICHESKIYE MASSY, No 10, Oct 83)	68	
Physical-Mechanical Properties of Polycomponent Epoxypolymers		
(V. A. Lipskaya, G. A. Voloskov, et al.; PLASTICHESKIYE		
MASSY, No 10, Oct 83)	68	
Physical-Mechanical Properties of Solidified Epoxy-Resin		
Materials at Cryogenic Temperature		
(A. F. Nikolayev, V. G. Karkozov, et al.;		
PLASTICHESKIYE MASSY, No 10, Oct 83)	69	
Optimal Casting Conditions for Products Made of Polycarbonate		
(A. I. Kumachev, L. Yu. Brazhnikova, et al.;		
PLASTICHESKIYE MASSY, No 10, Oct 83)	69	
PLASTICHESKITE MASSI, NO 10, OCT 637	09	
Radiation-Chemical Solidification of Epoxyoligoesteracrylate Compositions		
(N. D. Prishchepa, N. Kh. Fayzi, et al.;	70	
PLASTICHESKIYE MASSY, No 10, Oct 83)	70	
Activation of Fine Fluoroplastic Flim Surface		
(A. A. Skorobogatov, O. V. Alekseyev, et al.;		
PLASTICHESKIYE MASSY, No. 10, Oct. 83)	70	

	Directions and Effectiveness of Utilizing Some Construction	
	Thermoplastics in National Economy	
	(M. A. Roshchin, T. I. Shtoporova, et al.; PLASTICHESKIYE MASSY, No 10, Oct 83)	71
1	Imparting Long Lasting Antistatic Properties on	
	Polyacrylonitrile Piber	
	(A. Ye. Mil'grom, L. N. Andrianova, et al.;	
	KHIMICHESKIYE VOLOKNA, No 5, Sep-Oct 83)	71
	Polyphenic Reinforcement Fabric for Ion Exchange Membranes	
	(L. V. Slin'ko, M. V. Ovchinnikova, et al.;	
	KHIMICHESKIYE VOLOKNA, No 5, Sep-Oct 83)	72
RADIAT	ION CHEMISTRY	
	Effect of Ionizing Radiation on Process of Chromatographic	
	Separation of Rare Earth Elements: Separation of Light Rare Earth Elements	
	(L. A. Firsova, E. A. Chuveleva, et al.; ZHURNAL	
	FIZICHESKOY KRIMII, No 10, Oct 83)	73
RUBBER	AND ELASTOMERS	
	Supertire Production Started in the USSR	
	(V. Kurapin; SOTSIALISTICHESKAYA INDUSTRIYA,	
	25 Oct 83)	74
	Effect of Asbestos on Crystallization and Melting of Cis-1,4 Polybutadiene	
	(N. L. Severina, N. M. Gal'perina, et al.; KAUCHUK I	
	REZINA, No 10, Oct 83)	76
	Relation of Molecular Weight and Adhesion Properties of	
	Chlorinated Isoprene Rubbers	
	(E. S. Voskanyan, K. A. Torosyan, et al.; KAUCHUK I	
	REZINA, No 10, Oct 83)	76
	Effect of Rubber-Industrial Carbon Reaction on Properties of	
	Resins Based on SKI-3 Rubber Modified With Oligodienes	
	(A. P. Zyuzin, L. M. Lanovskaya, et al.; KAUCHUK I	77
	REZINA, No 10, Oct 83)	77
	Effectiveness of Modification of Resin Powder by Epoxied Oligodienes	
	(V. I. Izyumova, N. D. Zakharov, et al.; KAUCHUK I	
	REZINA, No 10, Oct 83)	78
	Effect of Radial Play and Load on Changes in Radial Force	
	Irregularities in Tires (V. F. Kulichkin: KAUCHUK I REZINA, No 10, Oct 83)	78
	LV. F. BULLCOKID: BAUGHUN I REZINA. NO LU. UCI ANT	10

WATER TREATMENT

	Removal of Petroleum Products Prom Waste Waters by Electrocoagulation	
	(B. S. Brayalovskiy, V. V. Pushkarev, et al.;	
	IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 8, Aug 83)	80
	Magnetic Field Application To Improve Properties of Recycled	
	Water in Coke-Chemical Production and Effectiveness of Heat Exchange Equipment Operations	
	(I. M. Glushchenko, S. P. Grishayenko; KOKS I KHIMIYA,	
	No 10, Oct 83)	80
	Determining Hydrolysis Plant Waste Water Pollution by Absorption of Light in Ultraviolet Region of Spectrum	
	(I. N. Pavlova, I. D. Dashkovskiy; GIDROLIZNAYA I	
	LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, Sep 83)	81
WOOD	CHEMISTRY	
	Study of Potential Utilization of Spent Oxygen-Alkali Cellulose	
	Bleaching Liquor in Production of Fodder Yeast	
	(V. V. Ovchinnikova, L. E. Soboleva, et al.; KHIMIYA DREVESINY, No 5, Sep-Oct 83)	82
	Study of Radiation-Disintegrated Wood, Part 4: Effect of Y-Radiation on Composition of Aspen Wood and Its	
	Digestibility by Ruminants (A. S. Klimentov, I. F. Vysotskaya, et al.; KHIMIYA	
	DREVESINY, No 5, Sep-Oct 83)	83
	Interaction of Media pH Change Rate, Titrant Consumption and Enzyme Productivity in Yeast Cultivation	
	(A. B. Voronkov, A. I. Sizov, et al.; GIDROLIZNAYA I	
	LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, Sep 83)	83
	Probability of Thermal Spontaneous Combustion of Nutrient Yeast in Soft Containers	
	(O. A. Vavilin, M. A. Yezhova; CIDROLIZNAYA I	
	LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, Sep 83)	84
	Development of Continuous Process for Camphene Formylation	
	(I. N. Klabukova, A. N. Trofimov, et al.; GIDROLIZNAYA	
	I LESOKH DMICHESKAYA PROMYSHLENNOST', No 6, Sep 83)	84

MISCELLANEOUS

Energetics Lasers	and	Max 1mum	KPD o	f C	hemical	HF- a	nd DF-CO ₂	Impulse	
(v.		Agroski ESKAYA P							86

USSR REPORT CHEMISTRY

CONTENTS

ANALYTICAL CHEMISTRY

Use of Low-Temperature Plasma in Physical Chemical	
Analysis of Biological Objects	
(S. A. Krapivina, et al.; ZHURNAL PRIKLADNOY	-
KHIMII, No 10, Oct 83)	1
Evaluation of Degree of Chemical Ordering in	
Glasses of As-S and As-Se Systems Using X-Ray	
Spectral Data	
(L. L. Makarov, et al.; DOKLADY AKADEMII	
NAUK SSSR, No 3, Nov 83)	1
Study of CO ₂ Decomposition in Silent Discharge	
(E. D. Mamedova, K. Yu. Adzhamov;	
AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL,	
No 1, 1983)	2
Determining Amounts of Bound Water in Precipitates	
of Industrial Effluent	
(V. M. Kazanskiy, et al.; KHIMIYA I	
TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	2
Determining Organic Compound Carbon in Effluent	
From Synthetic Rubber Enterprises	
(E. F. Yakubenok, et al.; KHIMIYA I	
TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	3
Effects of Organic Adsorbates on Proton Magnetic	
Resonance of Polymeric Ion Exchangers and	
Exchanger-Bound Water	
(M. I. Lifshits, Ye. V. Komarov; ZHURNAL	
FIZICHESKOY KHIMII, No 11, Nov 83)	4

New Method of Gas Chromatographic Separation of Isotope-Substituted Compounds in Glass Capillaries (N. V. Sterkhov, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 11, Nov 83)	4
BIOCHEMISTRY	
Chemical Assembly of Inorganic Matrices for Solid-Phase Synthesis of Peptides (V. N. Postnov, S. I. Kol'tsov; ZHURNAL	
PRIKLADNOY KHIMII, No 10, Oct 83)	5
CATALYSIS	
Frampton Method for Preparing Catalysts (V. A. Druz', G. G. Udartseva; ZHURNAL	
PRIKLADNOY KHIMII, No 10, Oct 83)	6
Crystallochemical Reactions in Binary Systems of Vanadium Catalysts	
(A. I. Berezhnoy, Yu. M. Polukhin; DOKLADY	
AKADEMII NAUK SSSR, No 3, Nov 83)	6
Activity of Aluminumfluoroplatinum Catalyst in Isomerization of n-Decane	
(V. V. Zadymov, et al.; NEFTEKHIMIYA,	
No 5, Sep-Oct 83)	7
Activity and Selectivity of Bifunctional Catalysts	
in Hydroisomerization and Hydrocracking Reactions	
(Ye. R. Gzhekhovyak, et al.; NEFTEKHIMIYA, No 5,	-
Sep-Oct 83)	7
Synthesis of Hydrocarbons From CO and H ₂ Over Co-MgAl ₂ O ₄ Catalyst	
(T. V. Khlebnikova, et al.; NEFTEKHIMIYA, No 5,	
Sep-Oct 83)	R
Spectrophotometric Study of Kinetics of Polymerization of Propargylic Esters of Phenol in Presence of Molybdenum Pentachloride	
(A. Kh. Yusupbekov, et al.; IZVESTIYA VYSSHIKH	
UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 10, Oct 83)	8
Synthesis and Catalytic Properties of Complexes of	
Transition Metals, Attached to the Surface of Oxide	
Carriers, Part 9: Complexes of Dicobaltoctacarbonyl	
With Phosphinated Silica Gel as Catalysts of Propylene Hydroformylation	
(B. L. Moroz, et al.; KINETIKA I KATALIZ,	
No 5, Sep-Oct 83)	9

	Some Features of Catalytic Conversion of Organosulfur Compounds and Asphaltenes of Residual Fuels Under Pressure	
	(L. P. Milova, et al.; KINETIKA I KATALIZ,	
	No 5, Sep-Oct 83)	9
	Effect of Chemisorbed Water on Activity of Superhigh-	
	Silicon Catalysts for Hydrocarbon Cracking	
	(V. V. Zadymov, et al.; KINETIKA I KATALIZ,	
	No 5, Sep-Oct 83)	10
	Selection of Catalytic Systems for Oxidative	
	Chlorination of Methane in Pseudo Liquefied Layer	
	(V. N. Rozanov, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 10, Oct 83)	11
	Surface Structure of Electroprecipitated Pd-, Rh-	
	and Pd-Rh Catalysts	
	(T. M. Grishina, O. K. Lebedeva; ZHURNAL	
	FYZICHESKOY KHIMII, No 11, Nov 83)	11
CHEM	ICAL INDUSTRA	
	Cherepovets Sulfuric Acid Plant on Stream	
	(N. Nenast'yev; SOTSIALISTICHESKAYA	
	INDUSTRIYA, 15 Dec 83)	12
	New Ammonia Producing Unit Completed at Togliatti	
	(N. Chulikhin; SOTSIALISTICHESKAYA INDUSTRIYA,	
	1 Dec 83)	4
	Ftoroplast Fractionating Column	
	(I. P. Yefremenko, et al.; KHIMICHESKOYE I	
	NEFTYANOYE MASHINOSTROYENIYE, No 10, Oct 83)	15
	Explosion-Safe Working Conditions of Liquid Oxygen	
	Evaporators	
	(V. F. Gustov, V. I. Faynshteyn; KHIMICHESKOYE	
	I NEFTYANOYE MASHINOSTROYENIYE, No 10, Oct 83)	15
	Stabilization of Liquid Sulfur Anhydride With Nitric Acid	
	(Yu. M. Solov'yev, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 10, Oct 83)	6
COAL	GASIFICATION	
	Calculation of Upper Concentration Limits for	
	Inflammation of Vapors of Organic and Metalorganic	
	Compounds in Air	
	(Yu. N. Shebeko, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 10, Oct 83)	7

COMBUSTION

Assuring Explosion Safety of Ammonium Absorption	
Process in Producing Carbamide by Flameless	
Combustion of Inflammable Impurities	
(E. A. Granovskiy, et al.; KHIMICHESKAYA	
TEKHNOLOGIYA, No 6, Nov-Dec 83)	18
ELECTROCHEMISTRY	
Kinetics and Mechanism of Oxidation Reaction of	
Glucose on Platinum Electrode	
(N. N. Nikolayeva, et al.; ELEKTROKHIMIYA,	
No 11, Nov 83)	19
Ion-Selective Field Transistor With SiO2 Membrane	
(V. M. Arutyunyan, et al.; ELEKTROKHIMIYA, No 11, Nov 83)	20
Study of Anion Adsorption on Rutherium- and	
Irridium-Oxide Electrodes by Radioactive	
Indicator Method	
(V. N. Andreyev, et al.; ELEKTROKHIMIYA,	
No 11, Nov 83)	20
Effect of Natur of Macrocyclic Polyesters on	
Electrode and Transport Characteristics of Liquid	
Membranes	
(V. N. Golubev, A. D. Gutsol; ELEKTROKHIMIYA,	
No 11, Nov 83)	21
FERTILIZERS	
Progress in Construction of Mineral Fertilizer	
Plants Reviewed	
(SOTSIALISTICHESKAYA INDUSTRIYA, 11 Dec 83)	22
Novgorod Production Association 'Azot' Started	
Producing a Complex Fertilizer	
(L. Aleynik; SOVETSKAYA ROSSIYA, 17 Nov 83)	25
Production of Potassium Sulfate and Nitrate During	
Nitric Acid Processing of Apatite Concentrate Into	
NPK Fertilizer	
(I. F. Mulyarchuk, V. I. Gumen; KHIMICHESKAYA	
TEKHNOLOGIYA, No 6, Nov-Dec 83)	27
INORGANIC COMPOUNDS	
Hydrogenation of Intermetallic Compounds and Alloys	
of Lanthanum and Aluminum	
(V. N. Verbetskiy, et al.; AZERBAYDZHANSKIY	
KHIMICHESKIY ZHIIDNAI No 1 1683)	28

Thermal Conductivity of Sodium, Potassium and Cesium	
Iodide Solutions in N-Methyl-2-Pyrrolidone	
(N. D. Klushin, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 11, Nov 83)	28
Thermodynamic Characteristics of Certain	
Hydroxyperoxides	
(Yu. Ya. Van-Chin-Syan, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 11, Nov 83)	29
ION EXCHANGE PHENOMENA	
Counterflow Ion-Exchange Apparatus	
(V. I. Poltavtsev; ZHURNAL PRIKLADNOY	
KHIMII, No 10, Oct 83)	30
NITROGEN COMPOUNDS	
Bubbling Method of Vinylizing Amidazole and	
Benzimidazole at Atmospheric Pressure	
(V. N. Voropayev, et al.; ZHURNAL PRIKLADNOY	
KHIMII, No 10, Oct 83)	31
ORGANOMETALLIC COMPOUNDS	
Effect of Ultrasound Irradiation in Synthesis of	
Aluminumorganic Compounds	
(A. V. Kuchin, et al.; ZHURNAL OBSHCHEY KHIMII,	
No 11, Nov 83)	32
Study of Aluminumorganic Peroxide Reactions With	
Aluminumorganic Compounds	
(V. A. Dodonov, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 11, Nov 83)	32
Formation of Complexes of Aluminum Organic With	
Ru(bipy)3Cl2. Chemluminescence of Their Reaction With 02	
(R. G. Bulgakov, et al.; DOKLADY AKADEMII NAUK SSSR,	
No 3, Nov 83)	33
ORGANOSPHORUS COMPOUNDS	
Reaction of Dialkyl Phosphites With Hexachloroacetone	
(I. G. Khaskin, I. V. Migaychuk; ZHURNAL	
OBSHCHEY KHIMII, No 11, Nov 83)	34
NMR Spectra of 77Se and 31P Compounds Containing	
$P(Se)-N-O(X) \subseteq Group$	
(L. K. Nikonorova, et al.; ZHURNAL OBSHCHEY	
FUTNIT No. 11 Nov. 92)	34

	Reactions of Benzalacetophenone, Dibenzel- and Benzalacetone With Phosphonous, Phosphinous	
	Acids and Sodium Diethylphosphaite	
	(A. N. Pudovik, et al.; ZHURNAL OBSHCHEY	
	KHIMII, No 11, Nov 83)	35
	Reactions of Ethanolamine With Trivalent Phosphorus	
	Chlorides and Amido Derivatives	
	(M. A. Pudovik, et al.; ZHURNAL OBSHCHEY KHINII, No 11, Nov 83)	26
	KRIMII, NO 11, NOV 63)	33
	Phosphorylation and Silylation of Some	
	Orthobifunctional Derivatives of Benzene	
	(M. A. Pudovik, et al.; ZHURNAL OBSHCHEY	
	KHIMII, No 11, Nov 83)	35
	Vinyl Esters of Phosphoric Acids, Part 26:	
	Reductive Thermal Breakdown of Vinylhydroxychlorophosphoranes	
	(T. V. Kolodka, et al.; ZHURNAL OBSHCHEY	
	KHIMII, No 11, Nov 83)	36
	Reaction of Paraformaldehyde With Amidophosphites	
	(L. A. Antokhina, et al.; ZHURNAL OBSHCHEY	
	KHIMII, No 11, Nov 83)	37
	Structure of Products of Reaction of 2-Phenyl (Acetyl)-	
	5-Methyl-1,2,3-Diazaphospholes With Methylphenyldiazomethane	
	(B. A. Arbuzov, et al.; DOKLADY AKADEMII	
	NAUK SSSR, No 3, Nov 83)	37
	Evaluation of Polar Properties of Organophosphorus	
	Compounds Using Chromatographic Data	
	(L. V. Ryazanova, et al.; IZVESTIYA VYSSHIKH	
	UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 10, Oct 83)	38
PESTI	CIDES	
	Study of Effectiveness of Certain Biocides for	
	Suppressing Plant Biomass in Closed Water Supply System	
	(N. I. Pavlenko, et al.; KHIMIYA I TEKHNOLOGIYA	
	VODY, No 5, Sep-Oct 83)	39
	Beatenfelds Astion of Biologically Action Cubatanasa	
	Bactericide Action of Biologically Active Substances on E. Coli	
	(L. A. Kul'skiy, et al.; KHIMIYA I TEKHNOLOGIYA	
	VODY, No 5, Sep-Oct 83)	30
	TODIS TO 3, SEPTOCE 03/	33

PETROLEUM PROCESSING TECHNOLOGY

	First Section of Achinsk Petroleum Refinery Reached Design Capacity	
	(V. Tanchuk; SOVETSKAYA ROSSIYA, 20 Nov 83)	41
	Need for a Gasochemical Complex Stressed	
	(S. Shakharov; TURKMENSKAYA ISKRA, 29 Sep 83)	43
	Liquid Phase Catalytic Oxidation of Diethylsulfide With Oxygen	
	(L. V. Vlasova, et al.; NEFTEKHIMIYA, No 5,	
	Sep-Oct 83)	46
	Membrane Gas-Separation Processes in Petrochemistry and Petroleum Refinery	
	(S. G. Durgar'van, Yu. P. Yampol'skiv;	
	NEFTEKHIMIYA, No 5, Sep-Oct 83)	46
	Isoprenanes From Polish Petroleum	
	(I. B. Ushakova, et al.; NEFTEKHIMIYA, No 5, Sep-Oct 83)	47
	Synthesis of S, S1-Dibenzyl Ethers of Dithiodicarboxylic	
	Acids and Study of Them as Lubricating Oil Additives	
	(I. A. Aliyev, et al.; AZERBAYDZHANSKIY	
	KHIMICHESKIY ZHURNAL, No 1, 1983)	47
	Study of Finely Granular Slag Concretes for Concreting	
	Pipes of Marine Underwater Pipelines (G. G. Shakhtakhtinskaya, et al.; AZERBAYDZHANSKIY	
	KHIMICHESKIY ZHURNAL, No 1, 1983)	48
	Catalytic Conversion of Natural Gas by Products of	
	Its Combustion	
	(G. I. Chalyuk, et al.; KHIMICHESKAYA	10
	TEKHNOLOGIYA, No 6, Nov-Dec 83)	48
OLY	MERS AND POLYMERIZATION	
	Metallization of Plastic Materials	
	(Mudis Ionovich Shalkauskas; METALLIZATSIYA	
	PLASTMASS (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE:	
	SERIYA "KHIMIYA"), No 11, Nov 83)	49
	Producing Modified Mineral Fillers for Fire-Resistant Compositions	
	(N. L. Tutayeva, et al.; ZHURNAL PRIKLADNOY	
	KHIMII, No 10, Oct 83)	52

	Alkali Metal by Continuous Technology	
	(A. A. Efendiyev, et al.; AZERBAYDZHANSKIY	
	KHIMICHESKIY ZHURNAL, No 1, 1983)	52
	Effect of Polymer Mobility and Chain Length of	
	Catalytic Properties of Complexes of Transition	
	Metals and Polyethyleneglycol	
	(V. A. Seleznev, et al.; KINETIKA 1 KATAL1Z,	
	No 5, Sep-Oct 83)	53
	Cationic Polymerization of Vinylacetylene	
	(S. G. Grigoryan, et al.; ARMYANSKIY	
	KHIMICHESKIY ZHURNAL, No 10, Oct 83)	54
RUBBER	AND ELASTOMERS	
	Effect of Structural Factors on Thermal Oxidation of	
	Carbon Chain Rubbers	
	(I. V. Baranets, et al.; ZHURNAL PRIKLADNOY	
	KHIMII, No 10, Oct 83)	55
	Study of Effect of Chloroparaffin on Properties of	
	Mixtures of Rubber and Their Vulcanizers	
	(A. A. Dontsov, et al.; AZERBAYDZHANSKIY	
	KHIMICHESKIY ZHURNAL, No 1, 1983)	55
	Aging of Rubber and Thickening Agents in Secondary	
	Emission Fields of High Energy Proton Accelerators	
	and Co-60, Part 1	
	(T. G. Degteva, et al.; KAUCHUK I REZINA,	
	No 11, Nov 83)	56
	Pentaerythrite Esters of Carboxylic Acids in	
	Vulcanization of Chlorine-Containing Elastomers	
	(Z. A. Kovacheva, et al.; KAUCHUK I REZINA,	
	No 11, Nov 83)	56
	Effects of Chlorinated Carbon Black on Mixed SKEPT-40/SKN-40M Rubber	
	(A. L. Plekhanova, et al.; KAUCHUK I REZINA,	
	No 11, Nov 83)	57
WATER 7	TREATMENT	
	Purifying Sewage of Cadmium With Sorbent Based on	
	Titanium Phosphate	
	(T. Ye. Mitchenko, et al.; KHIMIYA I	
	TEXHNOLOGIVA VODY, No 5, Sep-Oct 83)	SA

	Electrochemical Decolorization of Dye Solutions	
	(P. N. Endyus'kin, et al.; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	58
	Purifying Effluent Water of 'Elbor' Production	
	(V. M. Rogov, T. L. Shvetsova; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	59
	Decolorization of Waste Water From Finish Dye	
	Production at Textile Plants	
	(V. G. Bondar', et al.; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	60
	Preliminary Flotation Purification of Effluent From	
	Sugar Production Plants	
	(V. V. Sakhnenko; KHIMIYA I TEKHNOLOGIYA VODY,	
	No 5, Sep-Oct 83)	60
	Obtaining Alkali With Simultaneous Demineralization	
	of Water in Electrodialyzer With Semi-Bipolar Membranes	
	(Yu. A. Antonov, et al.; KHIMIYA I TEKHNOLOGIYA	
	VODY, No 5, Sep-Oct 83)	61
	Study in Flocculation of E. Coli Cells and Natural	
	Rubber Latex by Cation Flocculants	
	(I. M. Solomentseva, et al.; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 5, Sep-Oct 83)	61
	Study of Salt Escape During Fire Purification of	
	Effluent	
	(N. I. Rasyuk, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 10, Oct 83)	62
	Maximum Permissible Concentration of Benzthiazole	
	and 2-Mercaptobenzthiazole in Biochemical	
	Purification of Effluent	
	(V. I. Repkina, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 10, Oct 83)	62
IISC	CELLANEOUS	
	Study of Effect of Oxygen Dissolved in Sea Water on	
	Behavior of Antimony Metal Oxide Electrode	
	(G. I. Marinina, Ye. F. Radayev; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 10, Oct 83)	63
	ANIMICHESANIA IEANNOLOGIIA, NO 10, OCC 03/	03
	Principles Underlying Extraction of Phenols From Aqueous	
	Solutions With Halogen-Containing Solvents	
	(Ya. I. Korenman; ZHURNAL FIZICHESKOY KHIMII,	
	No 11, Nov 83)	63

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

	Adsorption and Polymerization of e-Caprolactam on	
	Montmorillonite Surface (M. T. Bryk, et al.; KOLLOIDNYY ZHURNAL, No 6, Nov-Dec 83)	1
	(M. I. Bryk, et al.; Rollfoldwil Zhornad, no o, nov-bec os)	7
	Reaction of Triphenyl Methanol With Montmorillonite	
	(Yu. I. Tarasevich, V. Ye. Doroshenko; KOLLOIDNYY	
	ZHURNAL, No 6, Nov-Dec 83)	1
	Properties of Thermoxide-5 Sorbent for Extraction of Uranium	
	(T. G. Malykh, et al.; RADIOKHIMIYA, No 5, Sep-Oct 83)	2
	Mechanism of Uranium Sorption by Phosphinic Acid Ion	
	Exchange Resins	
	(Ye. A. Filippov, et al.; RADIOKHIMIYA, No 5, Sep-Oct 83)	2
	Ag Sorption With Metal Oxides From Borate Solutions	
	(N. I. Ampelogova; RADIOKHIMIYA, No 5, Sep-Oct 83)	3
AN	ALYTICAL CHEMISTRY	
	Chemical and Spectral Analysis of Highly Purified Selenium	
	Involving Extraction With 1-Hexene	
	(V. G. Torgov, et al.; ZHURNAL ANALITICHESKOY KHIMII,	
	No 12, Dec 83)	4
	Gas Liquid Chromatography of Pesticides (Survey)	
	(V. D. Chmil'; ZHURNAL ANALITICHESKOY KHIMII, No 12, Dec 83).	4
	Atomic Absorption Spectroscopy in Chromatographic Analysis	
	(M. Ya. Bykhovskiy, A. Yu. Braude; ZHURNAL	
	ANALITICHESKOY KHIMII, No 12, Dec 83)	5

Trace Element Composition of Coal Hydrogenation Prod	
(A. P. Yegorov, et al.; KHIMIYA TVERDOGO TOPL	
No 6, Nov-Dec 83)	5
Extraction Separation of Some Rare Earth Elements Wi Solution of Diantipyrylmethane in Presence of Perc (I. V. Pyatnitskiy, et al.; UKRAINSKIY KHIMIC	hlorate Ions
ZHURNAL, No 11, Nov 83)	6
BIOCHEMISTRY	
Bioelectrocatalysis: Enzyme Electrodes	
(A. I. Yaropolov, et al.; VESTNIK MOSKOVSKOGO	
UNIVERSITETA, No 6, Nov-Dec 83)	7
Piezoelectric Microgravimetric Analysis of Protein A on Solids	dsorption
(L. M. Malinovskaya, et al.; VESTNIK MOSKOVSK	rogo
UNIVERSITETA, No 6, Nov-Dec 83)	
Swing Centrifuges for Medicinal and Chemical Product	ion
(M. F. Napalkova, et al.; KHIMICHESKOYE I NEF	
MASHINOSTROYENIYE, No 11, Nov 83)	
Novel Separators for Microbiological and Alcohol Ind	ustry
(A. V. Smirnov, et al.; KHIMICHESKOYE I NEFTY	ANOYE
MASHINOSTROYENIYE, No 11, Nov 83)	8
Industrial Utilization of Hydrocyclones	
(V. A. Vaydukov, Ya. Kh. Prilutskiy; KHIMICHE	SKOYE I
NEFTYANOYE MASHINOSTROYENIYE, No 11, Nov 83).	9
CATALYSIS	
Synthesis of Bimetallic Catalyst With Carrier Made F Modified Peat	rom
(P. I. Bel'kevich, et al.; ZHURNAL PRIKLADNOY	KWTMTT
No 11, Nov 83)	10
Phosphine Oxidation With Oxygen in Presence of Iodid	e Ions
Catalyzed With Deposited Copper Chloride Complexes	
(T. L. Rakitskaya, N. N. Abramova; IZVESTIYA	
UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 11, Nov 83)	10
Positron Annihilation in Pd/Al ₂ 0 ₃ Catalysts	
(I. Ya. Dekhtyar, et al.; KHIMICHESKAYA FIZIK	A No 11
Nov 83)	
nor oj/	************

	and Rare Earth Elements in Oxidation of Ethylbenzene to Hydroperoxide	
	(V. M. Mirianashvili, B. R. Serebryakov; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 2, 1983)	1:
	AlClHCl-Toluene Catalyzed Alkylation of Benzene by Low	
	Molecular Weight a-Olefins (M. N. Magerramov, et al.; AZERBAYDZHANSKIY	
	KHIMICHESKIY ZHURNAL, No 2, 1983)	12
	CO Based Synthesis of Hydrocarbons in Presence of Co-Catalysts (A. L. Lapidus, et al.; KHIMIYA TVERDOGO TOPLIVA,	
	No 6, Nov-Dec 83)	12
	Stability of Aluminum-Platinum Catalyst in Heptane Conversion	
	(Yu. A. Savostin, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 11, Nov 83)	13
	TOPLIV I MASKE, NO II, NOV 03/	1.
	Stability of Tseokar Type Cracking Catalyst	
	(V. R. Zinov'yev, L. V. Bryzgalina; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 11, Nov 83)	13
н	EMICAL INDUSTRY	
	Scientific and Technological Collaboration Agreement Between	
	USSR and FRG	
	(PRAVDA VOSTOKA, 28 Oct 83)	11
	Drying and Granulating Coal Flotation Wastes in Fluidized Bed	
	(Yu. M. Rubin, et al.; KOKS I KHIMIYA, No 12, Dec 83)	15
	Catalytic and Surface Properties of Copper Oxide-Zinc Oxide Binary System	
	(P. G. Bondar', et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL,	
	No 11, Nov 83)	15
	Design and Use Features of Absorption Lithium Bromide Coolers	
	(N. G. Shmuylov, L. M. Rozenfel'd; KHIMICHESKOYE I	
	NEFTYANOYE MASHINOSTROYENIYE, No 12, Dec 83)	16
	Using Absorption Heat Pumps To Utilize Low-Potential Secondary	
	Thermal Energy Resources	
	(V. S. Yankov, A. G. Khoshtariya; KHIMICHESKOYE I	
	NEFTYANOYE MASHINOSTROYENIYE, No 12, Dec 83)	17
	Prospects for Using Solar Energy To Produce Seasonal Refrigeration	
	(E. R. Grosman; KHIMICHESKOYE I NEFTYANOYE	17
	MASHINOSTROYENIYE, No 12, Dec 83)	4

	Novel Technology for Production of Rotors for Centrifugal Separators Made of Plastics	
	(A. L. Belinskiy, et al.; KHIMICHESKOYE I NEFTYANOYE	
	MASHINOSTROYENIYE, No 11, Nov 83)	18
	Design and Construction Characteristics of Equipment With Protective Covers	
	(V. A. Bubnov; KHIMICHESKOYE I NEFTYANOYE	
	MASHINOSTROYENIYE, No 11, Nov 83)	18
	Treatment of Effluents at Nizhniy Tagil Metallurgical Plant (R. I. Kudryashova, et al.; KOKS I KHIMIYA, No 12, Dec 83)	19
COAL	GASIFICATION	
	Composition and Properties of Organic and Mineral Fractions of Shale Oil From Turovsk Deposits in BSSR	
	(Yu. I. Gor'kiy, et al.; KHIMIYA TVERDOGO TOPLIVA,	
	No 6, Nov-Dec 83)	20
	Molecular Oxygen Oxidation of Shale Oil Concentrates From Bulgarian Deposits	
	(T. K. Budinova, et al.; KHIMIYA TVERDOGO TOPLIVA.	
	No 6, Nov-Dec 83)	20
	Pyrolysis of Lignite Under Conditions of Limited Oxygen Access (V. I. Saranchuk, et al.; KHIMIYA TVERDOGO TOPLIVA, No 6, Nov-Dec 83)	21
	Thermal Dissolution of Lignite and Coal With Addition of Natural and Silicon Organic Compounds	
	(A. B. Vol'-Epshteyn, et al.; KHIMIYA TVERDOGO TOPLIVA,	
	No 6, Nov-Dec 83)	21
COMB	USTION	
	Structure of Planar Flame of Perchloric Acid-Ammonia Mixture and Kinetics of Elementary Chemical Reaction in Flame (O. P. Korobeynichev, V. N. Orlov; KHIMICHESKAYA	
	FIZIKA, No 11, Nov 83)	23
FERT	ILIZERS	
	Novomoskovsk Nitrogen Facility Jubilee (E. Mokhorov; SOTSIALISTICHESKAYA INDUSTRIYA, 23 Dec 83)	24
	Ammofos Production Targets Approved (SOTSIALISTICHESKAYA INDUSTRIYA, 11 Jan 84)	26
	Ammonia Facility on Stream (SOPSIALISTICHESKAYA INDUSTRIVA 1 Jan 8h)	28

	Advantages of Liquid Fertilizer (B. Leshchikov; EKONOMICHESKAYA GAZETA, No 50, Dec 83)	29
	Nitroammophos Production Started at Meleuz Chemical Plant (SEL'SKAYA ZHIZN', 13 Nov 83)	31
	Update on Phosphorite Mining in the Zhanatas Basin (SOTSIALISTICHESKAYA INDUSTRIYA, 10 Nov 83)	32
	Carbamide Production Started Up Ahead of Time in Nevinnomyssk 'Nitrogen' Association (SOTSIALISTICHESKAYA INDUSTRIYA, 15 Nov 83)	33
	Production of Fertilizers Ahead of Schedule (SEL'SKAYA ZHIZN', 16 Dec 83)	34
FOOD	TECHNOLOGY	
	Contemporary Centrifuges for Sugar Industry (A. V. Taranets, et al.; KHIMICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE, No 11, Nov 83)	35
INOR	GANIC COMPOUNDS	
	Effect of Sodium Oxide on Technological and Technical Properties of Pyroxene Pyrocerams (N. I. Min'ko, et al.; ZHURNAL PRIKLADNOY KHIMII, No 11,	
	Nov 83)	36
	Effect of LiC1, NaCl and KCl on Activation of Carbon Fibers (A. A. Morozova, I. N. Yermolenko; ZHURNAL PRIKLADNOY KHIMII, No 11, Nov 83)	36
	Comparative Calculation of Thermodynamic Data on Zinc Selenide (V. A. Kobzar'-Zlenko, O. M. Konovalov; UKRAINSKIY	
	KHIMICHESKIY ZHURNAL, No 12, Dec 83)	37
	Physicochemical Interactions in HgTe-SnTe System (P. F. Vengel', et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 12, Dec 83)	37
	Anode Solubility of Aluminum in Alcohol Solutions of LiC1 (L. F. Kozin, S. N. Nagibin; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 11, Nov 83)	38
ION I	EXCHANGE PHENOMENA	
	Ligand Exchange Processes in Uranyl Complexes With Tertiary	
	Arsine Oxides in Aqueous Solutions (V V Vership et al.: RADIOKHIMIYA No. 5 Sep-Oct. 83)	30

NITROGEN COMPOUNDS

Analysis of Cyanamide and Cyanamide-d ₂ Vibration Spectra by CNDO/2 Gradient Method	
(L. S. Khaykin, et al.; VESTNIK MOSKOVSKOGO UNIVERSITETA.	
No 6, Nov-Dec 83)	40
ORGANOPHOSPHORUS COMPOUNDS	
Ozone Reaction With Tributylphosphate	
(V. Ye. Vyatkin, et al.; RADIOKHIMIYA, No 5, Sep-Oct 83)	41
Study of Phosphorylated Thiourea Structures by IR Spectroscopy (R. G. Islamov, et al.; ZHURNAL OBSHCHEY KHIMII, No 12,	
Dec 83)	41
Diketene in Organophosphoric Synthesis, Part 3: Reaction With Silyl Phosphites and Dialkylphosphites	
(A. N. Pudovik, et al.; ZHURNAL OBSHCHEY KHIMII,	
No 12, Dec 83)	42
Reaction of Diphenylphosphite With Tetraphenyl and 2,5-	
Bis(Methoxycarbonyl)-3,4-Diphenylcyclopentadienones	
(B. A. Arbuzov, et al.; ZHURNAL OBSHCHEY KHIMII, No 12.	
Dec 83)	43
Reactions of 1.5-Diketones, Part 43: Phosphonylation of	
2-Methylene-1,5-Diketones With Dialkylphosphites	
(V. I. Vysotskiy, et al.; ZHURNAL OBSHCHEY KHIMII,	
No 12, Dec 83)	43
Dialkyltrifluoromethylphosphonates	
(I. G. Maslennikov, et al.; ZHURNAL OBSHCHEY KHIMII,	
No 12, Dec 83)	44
PESTICIDES	
Problems in Khimprom Association in Ufa	
(B. Odintsov; SOVETSKAYA ROSSIYA, 14 Dec 83)	45
PETROLEUM PROCESSING TECHNOLOGY	
New Methanol Plant To Be Put in Operation	
(EKONOMICHESKAYA GAZETA, No 43, Oct 83)	48
Polymers and Steam Used To Recover Petroleum on Buzachi Peninsula	
(G. Groyser; SOTSIALISTICHESKAYA INDUSTRIYA, 18 Nov 83)	49
Improvements in Oil Refining Planned	
(EKONOMICHESKAYA GAZETA, No 48, Nov 83)	50

Shortcomings in Nizhnevartovsk Petroleum Mining Work (L. Kozodoy; SOTSIALISTICHESKAYA INDUSTRIYA, 18 Nov 83)	55
	00
Third Section of Tomsk Petrochemical Plant Near Completion	
(EKONOMICHESKAYA GAZETA, No 43, Oct 83)	58
Effect of Additions of Propylene and Isobutylene on Propane Cracking	
(L. I. Karnaukhova, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 11,	**
Nov 83)	59
Flue Gas Method for Extracting Petroleum Applied to Kyursang Oil Field Conditions	
(E. G. Aga-Zade, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
KHOZYAYSTVO, No 10, Oct 83)	59
Controlling Spatial Distortion in Drilling Inclined Well Holes at Muradkhanla Oil Field	
(O. K. Mamedbekov; AZERBAYDZHANSKOYE NEFTYANOYE	
KHOZYAYSTVO, No 10, Oct 83)	60
Basic Principles of Planning Components for Operator Control by Shaft Bending in Inclined Well Holes	
(F. A. Mamedov; AZERBAYDZHANSKOYE NEFTYANOYE KHOZYAYSTVO,	60
No 10, Oct 83)	60
Results of Scientific Research and Design Testing Activities of All-Union Scientific Research Institute for Safety Technology in Petroleum Industry in Safety Technology for Dr. Ling Deep Wells	
(M. M. Suleymanov, R. M. Khasayev; AZERBAYDZHANSKOYE	
NEFTYANOYE KHOZYAYSTVO, No 10, Oct 83)	61
Study of Interaction of Pressure and Extraction Wells in Petroleum Extraction by Foam System	
(T. M. Mamedov, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
KHOZYAYSTVO, No 10, Oct 83)	62
Increasing Petroleum Preparation Effectiveness	
(S. A. Zarutskiy, P. I. Kulakov; AZERBAYDZHANSKOYE	
NEFTYANOYE KHOZYAYSTVO, No 10, Oct 83)	62
Experimental Study Methodology for Use Tension in Welded Elements	
of Stationary Sea Drilling Platforms	
(M. F. Kurbanov, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
KHOZYAYSTVO, No 10, Oct 83)	63
Hydrocarbon Composition of Petroleum of 28 April Oil Field	
(G. G. Ashumov, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
KHOZYAYSTVO, No 10, Oct 83)	63

1	Study of Antismoking Properties of Alkylphenolsulfonates (Z. E. Aliyev, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
	KHOZYAYSTVO, No 10, Oct 83)	64
	Significance of Use Location in Increasing Effectiveness of New Technology Under Conditions of Scientific and Technical Progress (B. A. Dadashev, et al.; AZERBAYDZHANSKOYE NEFTYANOYE	
	KHOZYAYSTVO, No 10, Oct 83)	64
	'Neftegaz-83', Second International Exhibition of Drilling and Pumping Equipment for Petroleum and Gas Wells, Baku, USSR, 6-15 September 1983)	65
	(REENBRIDENBRICKOTE REFITANCEE RECEIRED TVO, NO 10, OCT 03/	0)
	Experience Gained in Mastering Apparatus for Deparaffinization of Diesel Fuel by Means of Aqueous Alcoholic Carbamide Solution (A. G. Ismaylov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	
	I MASEL, No 11, Nov 83)	65
1	Study of Thermal Stability of Aviation Lubricants by Thermogravimetric Analysis	
	(B. G. Bedrik, I. S. Krichinskiy; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 11, Nov 83)	66
	Effect of Hydrogen Sulfide on Properties of Turbine 011 (A. A. Gureyev, et al.; KHIMIYA I TEXHNOLOGIYA TOPLIV	4.4
	I MASEL, No 11, Nov 83)	66
	Evaluation Method for Oxidizability of Aviation Lubricants Based on Kinetic Parameters	
	(V. A. Borisov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	-
	I MASEL, No 11, Nov 83)	67
	Rapid Methods for Evaluation of Radiation Stability of Lubricants (V. B. Dem'yanovskiy, et al.; KHIMIYA I TEKHNOLOGIYA	
	TOPLIV I MASEL, No 11, Nov 83)	67
PHARM	ACOLOGY AND TOXICOLOGY	
	Toxin-Producing Molds in Food Described	
	(Rita Teyvane; NAUKA I TEKHNIKA, No 12, Dec 83)	63
	Effects of Panthothenic Acid Derivatives on Acute Ethanol and Acetaldehyde Toxicity	
	(A. G. Moyseyenok, B. F. Dorofeyev; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 11, Nov 83)	73
	Effects of 5-Methyl-1,2-Dihydro-3H-1,4-Benzodiazepine-2-Ones on Binding of 3H-Diazepam to Benzodiazepine Receptors and Their Psychotrophic Effects	
	(S. A. Andronati, et al.; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL,	
		73

Recovery of Methylene Chloride and Methanol as Byproducts in Antibiotic Production (V. S. Timofeyev, et al.; KHIMIKO-FARMATSEVTICHESKIY	
ZHURNAL, No 11, Nov 83)	74
Evaluation of Radiochemical Damage to Polymeric Objects Sterilized by Electron Accelerators	
(B. A. Gorelik, et al.; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 11, Nov 83)	75
POLYMERS AND POLYMERIZATION	
Storage Space Doubled for Raw Material Used in Polypropylene Production	
(EKONOMICEESKAYA GAZETA, No 43, Oct 83)	76
Continuous Process Synthesis of Low Molecular Weight Polystyrenes With Terminal Alkali Metal Atoms (O. T. Badalova, et al.; AZERBAYDZHANSKIY KHIMICHESKIY	
ZHURNAL, No 2, 1983)	77
Effects of Weak Magnetic Fields on Mobility of Charge Carriers in Polyacetylene	
(Ye. L. Frankevich, et al.; KHIMICHESKAYA FIZIKA, No 12, Dec 83)	77
Deviation From Equilibrium Dimerization of Carboxylic Acids in Polymeric Matrix (G. V. Gusakova, et al.; KHIMICHESKAYA FIZIKA, No 12,	
Dec 83)	78
Copolymerization of Ethylene With Vinylacetate in Flow Reactor Equipped With Stirrer	
(R. A. Terteryan, et al.; PLASTICHESKIYE MASSY, No 11, Nov 83)	78
Polycyclotrimerization of Oligoamido-Bis-(Cyanamides) and Properties of Polymers Formed	
(G. I. Shukurov, et al.; PLASTICHESKIYE MASSY, No 11, Nov 83)	79
Antistatic Properties of Decorative-Separation Polymer Films (V. I. Kislyakova, et al.; PLASTICHESKIYE MASSY, No 11,	-
Nov 83)	79
Effect of γ-Radiation on Properties of Fluoroplastic F-2M (Yu. V. Khankin, et al.; PLASTICHESKIYE MASSY, No 11, Nov 83)	80
Effect of Admixtures on Thermal Stability of Polycarbonate (M. I. Siling, et al.; PLASTICHESKIYE MASSY, No 11, Nov 83).	80

	Antifrictional Properties of Some Thermoplastics Containing Carbon Fillers	
	(B. I. Molchanov, et al.; PLASTICHESKIYE MASSY, No 11.	
	Nov 83)	81
	Development of Dielectric Insulators	
	(N. N. Turkova, V. N. Borin; PLASTICHESKIYE MASSY, No 11.	
	Nov 83)	81
	MOV 03/	01
	Chemical Structure and Adhesive Properties of Polyamides	
	(M. A. Zadoya, A. Ye. Pavlova; PLASTICHESKIYE MASSY.	
	No 11, Nov 83)	82
	and the second s	
	Effect of Absorbed Irradiation Dose Strength on Postradiation	
	Changes in Volume Resistance of Polymer Dielectrics	
	(S. N. Makeyev, N. I. Filatov; PLASTICHESKIYE MASSY,	
	No 11, Nov 83)	82
	Heat Aging and Longevity of Loaded Multilayered, Welded Film	
	Materials of 2ML-PE-2ML-PE Brand	
	(G. A. Matikov, et al.; PLASTICHESKIYE MASSY, No 11,	
	Nov 83)	83
		0)
	Hydrolytic Lignin as Filler for Carbamide Foam Plastics	
	(A. A. Leonovich, et al.; PLASTICHESKIYE MASSY, No 11,	
	Nov 83)	83
RITRE	BER AND ELASTOMERS	
IV-DA	DEL PRO EMPOYONED	
	Nizhnekamsk Petrochemical Center	
	(EKONOMICHESKAYA GAZETA, No 47, Nov 83)	84
WATE	R TREATMENT	
	Study of Process of Platinum Catalyst Poisoning During Liquid-	
	Phase Hydrogenation Under Pressure of Hydrogen	
	(D. V. Sokol'skiy, et al.; ZHURNAL PRIKLADNOY KHIMII,	
	No 11, Nov 83)	85
	Electrodialysis of Wash Waters After Fixing Photographic Film	
	(A. A. Belyak, et al.; ZHURNAL PRIKLADNOY KHIMII, No 11,	
	Nov 83)	86
	Study of Electrochemical Oxidation of Trilon B	
	(D. A. Musakin, et al.; ZHURNAL PRIKLADNOY KHIMII, No 11,	
	Nov 83)	86
	NOT 03/	00
	Recovery of Arsenic From Thermal Waters	
	(A. N. Muriyev, et al.; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL	
	No 2, 1983)	87
MISS	CELIANBOUS	
MID		
	Regeneration of Selenium From Alkaline Solutions	
	(T. M. Sas, et al.; ZHURNAL OBSHCHEY KHIMII, No 12, Dec 83).	88

USSR REPORT CHEMISTRY

CONTENTS

	AI	K	A	L	0	I	D	S
--	----	---	---	---	---	---	---	---

	Cytisine Demethylation (T. K. Kasymov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 5, Sep-Oct 83)	1
ANALYTI	ICAL CHEMISTRY	
	Gas-Chromatographic Assay of Pantoic Acid in Vitamin-Containing Preparations	
	(V. S. Slyshenkov, A. G. Moyseyenok; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 12, Dec 83)	5
	Mechanism of Formation and Disintegration of Active Particles in Halogen Plasma	
	(A. P. Kupriyanovskaya, V. I. Svetsov; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 12, Dec 83)	2
	Features of Thermal Decomposition of Sodium Bicarbonate	
	Exposed to High-Frequency Electric Field	
	(G. I. Berdov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH	
	ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA,	
	No 12, Dec 83)	3
	Gas Chromatographic Analysis of Adsorption of Organic	
	Solvents to Polyester Fibers	
	(T. I. Arzhakova, I. B. Blinicheva; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 9, Sep 83)	3
	TERRITORIOTIA, NO 9, Dep 03/	3
	Determination of Dehydrogenase Activity of Microorganisms in	
	Active Sludge	
	(R. A. Fridman, Ye. V. Rudnenko; PLASTICHESKIYE MASSY,	4
	No 12, Dec 83)	4

	Mass Spectrometric Study of Thermal Stability of Artificial Micas	
	(I. N. Anikin, et al.; DOKLADY AKADEMII NAUK SSSR.	
	No 1, Jan 84)	14
	Thermal Transformations of Hydrocarbons at High Pressures	
	(O. A. Voronov, et al.; DOKLADY AKADEMII NAUK SSSR,	
	No 1, Jan 84)	5
	Radiation-Thermal Destruction of Cellulose	
	(B. G. Yershov, et al.; DOKLADY AKADEMII NAUK SSSR,	
	No 1, Jan 84)	5
BIOC	HEMISTRY	
	Biological Role and Toxic Properties of Cyanides	
	(G. I. Oksengendler; PRIRODA, No 12, Dec 83)	6
	Microbiological Synthesis of Fodder Protein From Natural Gas	
	(I. Mordvintsev; SOTSIALISTICHESKAYA INDUSTRIYA, 20 Dec 83).	18
	Plant Goes Onstream	
	(L. Aleynik; SOTSIALISTICHESKAYA INDUSTRIYA, 8 Jan 84)	20
	Effectiveness of Methanol Use as Starting Material in	
	Production of Microbial Feed Protein	
	(B. F. Sgadlev, G. M. Kaufman; KHIMICHESKAYA	
	PROMYSHLENNOST', No 12, Dec 83)	21
	Release of 14 C Acetylcholine From Synaptosomes Under Effect of	
	Presynaptic Neurotoxins From Snake and Bee Venoms-	
	Phospholipases A	
	(Ya. T. Terletskaya, et al.; BIOKHIMIYA, No 11, Nov 83)	21
	Biochemical Criteria of Mammalian Cell Sensitivity to	
	Glucocorticoids	
	(A. V. Polotskaya, et al.; BIOKHIMIYA, No 11, Nov 83)	55
CATA	LYSIS	
	Photosynthetic Process Adapted From Green Leaves	
	(M. Kuryachaya; SOVETSKAYA LATVIYA, 12 Oct 83)	23
	Possibility of Reactivating Poisoned Catalysts Discussed	
	(V. Zyablov; KHIMIYA I ZHIZN', No 1, Jan 84)	27
	Investigation of Formation Process of Complex Palladium Catalysts	
	for Selective Hydrogenation of Conjugated Dienes to Olefines	
	(L. P. Shuykina, et al.; KINETIKA I KATALIZ, No 6,	
	Nov. Dag 82)	20

	Hydroxylaminesulfate	
	(A. L. Apel'baum, et al.; KINETIKA I KATALIZ, No 6,	
	Nov-Dec 83)	29
	Deuterium Isotope Exchange Between Hydrocarbons Over Nickel- Copper Supported Catalysts	
	(M. V. Khotuleva, et al.; KINETIKA I KATALIZ, No 6,	
	Nov-Dec 83)	30
	Hydrogenation of Carbon Monoxide on Deposited Copper-Containing Catalysts	
	(L. N. Morozov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 12,	
	Dec 83)	31
	Raney Nickel Catalysts in Continuous Hydrogenation of Benzene by Isopropanol	
	(B. Zh. Zhanabayev, et al.; IZVESTIYA VYSSHIKH UCHERNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 9,	
	Sep 83)	31
	Reduction Kinetics of Indigocarmine by Rongalite Catalyzed by Cobalt Lioximines With Different Axial and Equatorial Ligands (I. N. Terskaya, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 9,	
	Sep 83)	32
	Effect of Impurities on Catalytic Properties of a Complex in Alkylation of Benzene With Propylene	
	(A. G. Yepifanova, et al.; KHIMICHESKAYA PROMYSHLENNOST',	
	No 12, Dec 83)	32
	Determination of Ignition Conditions for Oxide Catalyst Used in Oxidation of Ammonia	
	(M. M. Karavayev, et al.; KHIMICHESKAYA PROMYSHLENNOST',	
	No 12, Dec 83)	33
	Efficiency of Series KR Polymetallic Catalysts in Reforming	
	(R. N. Shapiro, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	
	I MASEL, No 1, Jan 84)	33
OAL	GASIFICATION	
	Organosilicon Reagents in Coal Flotation (V. N. Petukhov; KOKS I KHIMIYA, No 1, Jan 84)	34
	Production of Electrode Pitch at Ukrainian Coal Chemistry Plants (I. N. Pityulin, et al.; KOKS I KHIMIYA, No 1, Jan 84)	34

.

ELECTROCHEMISTRY

Electrochemical Preparation and Properties of Gallium Arsenide Oxide Films	
(I. N. Sorokin, L. Ye. Gat'ko; ELEKTROKHIMIYA, No 1.	
Jan 84)	36
Photoelectrosynthesis of Organic Compounds on TiO2 Electrode	
(V. A. Grinberg, et al.; ELEKTROKHIMIYA, No 1, Jan 84)	36
FERTILIZERS	
Grodno Association Exceeds Planned Fertilizer Production (N. Kernoga; SOTSIALISTICHESKAYA INDUSTRIYA, 18 Dec 83)	38
Effectiveness of Use of Nitrogenous Fertilizers, Their Role and Importance in Intensification of Agriculture (Ya. I. Kil'man, A. F. Toshchev; KHIMICHESKAYA	
PROMYSHLENNOST', No 12, Dec 83)	39
Generalizations of Experience Gained During Investigation of Degree One Conversion of Carbon Monoxide in Ammonium Synthesis Plants With Capacity of 1360 T/Day (E. L. Furen, et al.; KHIMICHESKAYA PROMYSHLENNOST',	
No 12, Dec 83)	39
FOOD TECHNOLOGY	
Quality Control in Natural Food Dye Production (Z. B. Rakhimkhanov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 5, Sep-Oct 83)	41
Red Food Dyes From Plants (Z. B. Rakhimkhanov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL,	
No 5, Sep-Oct 83)	41
NITROGEN COMPOUNDS	
Structural Transformations in Thermally-Induced Intramolecular Cyclodehydration of Polyamidohydrazides (G. L. Berestneva, et al.; WYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 1, Jan 84)	43
ORGANOPHOSPHORUS COMPOUNDS	
Synthesis of O-Alkyl-N-(α-Piperidyl-β-Pyridine)methyl Phosphonates and O-Alkyl-N-(α-Piperidyl-β-Pyridine)methyl Thiophosphonates	
(A. A. Abdubakhabov, Sh. K. Kasymov; UZBEKSKIY	hh

	Structure of Organophosphorus Compounds, Part 23: X-ray Analysis of Molecular Complexes Involving Triphenylphosphinoxide and Tetrachloropyrocatechin (Ph ₂ PO·C ₆ Cl ₁ (OH) ₂) and Hydrated	
	Complex (Ph3PO·C6C1)(OH)2·H2O)	
	(M. Yu. Antipin, et al.; ZHURNAL STRUKTURNOY KHIMII, No 6, Nov-Dec 83)	141
	Anticholineserase Properties of O-(ω-Alkoxyalkyl-S-n-Butylmethylthiophosphonates, O-(ω-Alkoxyalkyl)-S-(Beta-Ethylmercaptoethyl)Methylthiophosphonates and Their Methylsulfomethylates (A. A. Abduvakhabov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	45
	Equilibrium of Stereoisomers of 4,6-Disubstituted 2,5-Diphenyl-2-Bora-1,3,5-Dioxaphosphorinanes (B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR:	
	SERIYA KHIMICHESKAYA, No 11, Nov 83)	46
	Production and Some Properties of Diphenylboryloxymethyl(Methyl)-Phenylphosphine	
	(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	46
	Some Properties of Phosphorus-Containing Ethers of Phenyl- and Diphenylboric Acids (B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	47
	Interaction of 2,4,6-Triisopropyl-1,3,5-Dioxaphosphorinane With Phenylazide	
	(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	47
	o-Carboranyl-Containing Esters of Pentavalent Phosphorus Acids (Ye. G. Rys, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	48
	Chlorocyanides of Trivalent Phosphorus	40
	(G. V. Romanov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 11, Nov 83)	48
PESTI	CIDES	
	Amine Derivatives of Thiourea and Isothiocyanates (N. Sh. Mirakhmedov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 5, Sep-Oct 83)	49
	Synthesis and Properties of Tetrahydrofurylacetylene Alcohols (R. A. Karakhanov, et al.; KHIMIYA GETEROTSIKLICHESKIKH SOYEDINENIY, No 12, Dec 83)	49
	DUIEDINENII, NO 12, DEC UJ/	47

	Synthesis of Thiirano-3,4-Thiolane-1,1-Dioxide (T. E. Bezmenova, et al.; KHIMIYA GETEROTSIKLICHESKIKH SOYEDINENIY, No 12, Dec 83)	50
PETROI	LEUM PROCESSING TECHNOLOGY	
	Clean Fuel for Kamsk Automobile Plant	
	(U. Bogdalov; SOTSIALISTICHESKAYA INDUSTRIYA, 20 Jan 84)	51
	Research on Motor Oil for the North Discussed	
	(I. F. Radzevenchuk, S. Z. Kaplan; KHIMIYA I ZHIZN',	
	No 1, Jan 84)	52
	Orenburg Helium-Producing Plant Quality Tested	
	(G. Zazvonov; SOTSIALISTICHESKAYA INDUSTRIYA, 16 Dec 83)	57
	Assurance of Chemomotologic Reliability in Aviation Technology	
	(V. A. Piskunov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I	
	MASEL, No 12, Dec 83)	58
	Rational Utilization of Petroleum Products in Aviation Technology	
	(B. G. Bedrik, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I	
	MASEL, No 12, Dec 83)	58
	Characteristics of Diesel Performance on Aqueous-Fuel Emulsions	
	(V. A. Tsenev; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL,	
	No 12, Dec 83)	59
	Extension of Diesel Fuel Resources by Optimization of Mazut F-5	
	Composition	
	(Ye. P. Seregin, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 12, Dec 83)	EO
	MAGEL, NO 12, Dec 03/	59
	Determination of Illumination Intensity of Reactive Fuel Flames	
	(V. G. Gorodetskiy, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	
	I MASEL, No 12, Dec 83)	60
	Characteristics of Determination of Octane Numbers in Aqueous	
	Fuel Emulsions	
	(Yu. A. Borisov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I	60
	MASEL, No 12, Dec 83)	60
	Prognostication of Performance Life of Aviation Oils Based on	
	Results of Laboratory Experiments	
	(Ye. P. Fedorov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	61
	I MASEL, No 12, Dec 83)	01
	Rheological Properties of Reactive Fuels	
	(N. M. Likhterova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV	61

	Oxidizability of Reactive Fuels T-6 and RT During Prolonged Storage	
	(V. M. Veselyanskaya, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 12, Dec 83)	62
	Preparation Characteristics of Aqeuous-Fuel Emulsions for Diesel Engines	
	(V. N. Antonov; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 12, Dec 83)	62
	Decrease in Fuel Consumption Using Special Additives to Motor Oils (V. L. Lashkhi, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 12, Dec 83)	63
	MADEL, NO 12, Dec 03/	03
	Growing Demand for Diesel Fuel	
	(B. A. Englin, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 1, Jan 84)	63
	Lubricating Grease With Amidoisocyanurate Thickener	
	(A. M. Danilov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I	-
	MASEL, No 1, Jan 84)	64
	Evaluation of Thermooxidative Stability of Aviation Engine Oils on Apparatus OP-100	
	(Ye. N. Chvykova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 1, Jan 84)	64
	Effects of Polymeric Additives on Thickened Oils (A. B. Kuliyev, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I	10
	MASEL, No 1, Jan 84)	65
PHARM	ACOLOGY AND TOXICOLOGY	
	Synthesis of Potential Drugs Based on Hydrophosphorylic Compounds, Part 4: Synthesis and Antimycotic Activity of Unsaturated Organophosphorus Compounds	
	(V. I. Yudelevich, et al., KHIMIKO-FARMATSEVTICHESKIY	
	ZHURNAL, No 12, Dec 83)	66
	Comparison of Antimicrobial Activity of Soviet-Produced Preservatives	
	(S. V. Denisova, et al.; KHIMIKO-FARMATSEVTICHESKIY	-
	ZHURNAL, No 12, Dec 83)	66
	Automatic Batcher of Nutrient Medium Components in Processes for Regulating Antibiotics Biosynthesis	
	(Yu. G. Lakeyev, V. N. Korshunov; KHIMIKO-FARMATSEVTICHE- SKIY ZHURNAL, No 12, Dec 83)	67
	New Approach to Synthesis of 2-Aminomethyl-3-Phenyl-5- Nitroindole Derivatives	
	(E. S. Krichevskiy, et al., GETEROTSIKLICHESKIKH	
	SOYEDINENIY, No 12, Dec 83)	68

POLYMERS AND POLYMERIZATION

Metal From Nonmetal	
(M. L. Khidekel', L. M. Gol'denberg; KHIMIYA I ZHIZN',	
No 1, Jan 84)	6
Polyacetalurethanes: Synthesis and Selected Properties	
(G. N. Petrov, et al.; KAUCHUK I REZINA, No 12, Dec 83)	70
Electrical Properties of Products of Pyrolysis of Carborane Polyarylates	
(V. S. Voishchev, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA	
No 1, Jan 84)	
Effect of Red Phosphorus on Thermooxidative Destruction of m-Carborane Polyamides	
(V. V. Korshak, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA,	
No 1, Jan 84)	7
Effects of Structural Heterogeneity and Composition on Assembly of Protein Macromolecules Into Glassy States	
(A. A. Askadskiy, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 1, Jan 84)	78
Synthesis and Certain Characteristics of Polyarylenesulfoneoxide- Polytetramethyleneoxide Block Copolymers	
(A. I. Aksenov, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 1, Jan 84)	78
Synthesis and Certain Characteristics of Polyarylenesulfoneoxide- Polyethyleneoxide Block Copolymers	
(A. I. Aksenov, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 1, Jan 84)	79
Polyamidocarborane-Induced Structural Changes in Compositions (V. V. Korshak, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA,	
No 1, Jan 84)	79
no 1, oan 04/111111111111111111111111111111111111	12
Synthesis and Study of Certain Polyalkoxyphosphazenes	
(V. V. Kireyev, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA,	
No 1, Jan 84)	. 80
Optically Active Epoxide Polymers: Synthesis and Prediction	
of Physical Properties	
(A. A. Askadskiy, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA	
Continuous Method of Producing Cellulose Fiber Material	
Possessing Amphoteric Properties	
(Le Chau Tkhan'; et al.; IZVESTIYA VYSSHIKH UCHEBNYKH	
ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 12,	
Dec #3\	A1

Acrylamide Polymerization in Presence of Gel-Immobilized Metalloporphyrins	
(G. P. Potapov, M. I. Aliyeva; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 9, Sep 83)	81
Effect of Metalorganic Compounds on Polymerization of Oligoesteracrylates in a Flux of Accelerated Electrons and	
on Stability of Polymers Prepared From These Oligoacrylates (N. V. Fomina, et al.; PLASTICHESKIYE MASSY, No 12, Dec 83)	82
Propylene Polymerization on Titanium-Magnesium Catalyst	
(G. N. Kashirina, et al.; PLASTICHESKIYE MASSY, No 12,	0.0
Dec 83)	83
Polymers Based on Cyanoethylated Bis-(Cyanoamides)	
(V. V. Korshak, et al.; PLASTICHESKIYE MASSY, No 12,	
Dec 83)	83
Synthesis of Pentaplast Using Aluminumorganic Catalysts	
(A. I. Il'yasova, et al.; PLASTICHESKIYE MASSY, No 12,	
Dec 83)	84
Synthesis and Modifying Properties of Glycidic Ester of	
5-Chloro-2-Methoxy-4-Methyl-4-Pentenic Acid	
(M. A. Akhmedov, et al.; PLASTICHESKIYE MASSY, No 12,	
Dec 83)	84
Production of Cation Membranes Based on Grafted Copolymers	
(A. S. Tevlina, et al.; PLASTICHESKIYE MASSY, No 12,	
Dec 83)	85
Dispersing and Absorbing Properties of FPU	
(S. A. Geydur, et al.; PLASTICHESKIYE MASSY, No 12, Dec 83).	85
Physical-Mechanical and Electric Properties of Polyimide Film	
Based on Tricyclo-[4,2,2,0 ^{2,5}]-dec-7-en-3,4,9,10-Tetra-	
carboxylic Acid Dianhydride and 4,4'-Diaminodiphenyl Oxide	
(B. A. Zhubanov, et al.; PLASTICHESKIYE MASSY, No 12,	
Dec 83)	86
Study of Radiation Electroconductivity of Some Polymers	
(O. S. Aleksanina, V. P. Sichkar'; PLASTICHESKIYE MASSY,	
No 12, Dec 83)	86
Gaspermeable Material Based on PMMA, PS and PVC	
(A. I. Golubev; PLASTICHESKIYE MASSY, No 12, Dec 83)	87
Polyhexazocyclanes as Photo- and Thermostabilizers for Polymers	
(I. Ya. Kalontarov, et al.; PLASTICHESKIYE MASSY, No 12,	R7

	(D. A. Soyref, et al.; DOKLADY AKADEMII NAUK SSSR, No 1.	
		88
	4-Phenyl-1,3-Dioxane Hydroperoxide and Cobalt Chloride Cyclohexyl Sulfoxide SystemEffective Methylmethacrylate	
	Polymerization Initiator	
	(E. M. Kuramshin, et al.; DOKLADY AKADEMII NAUK SSSR: No 1, Jan 84)	88
	Catalytic Effect of Copper Acetate on Polymerization of Styrene in Presence of Water	
	(A. F. Nikolayev, et al.; DOKLADY AKADEMII NAUK SSSR,	
	No 1, Jan 84)	89
	Effect of Parameters of Rubber Phase on Viscosity Properties of High Impact Polystyrene	
	(Yu. V. Nikitin; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 12, Dec 83)	89
	Study of Epoxy Polymers Based on Resorcinol Diglycidyl Ether Modified by Low-Molecular Rubber	
	(Yu. S. Kochergin, et al.; VYSOKOMOLEKULYARNYYE	
	SOYEDINENIYA, No 12, Dec 83)	90
	Relationship of Thermal Stability of Partially Fluorinated Polymers to Their Structure	
	(N. N. Loginova, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 12, Dec 83)	90
	Distribution of Centers of Mechanoemission on Surface of	
	Strained Polymers (V. A. Zakrevskiy, V. A. Pakhotin, VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 12, Dec 83)	91
RUBBER	AND ELASTOMERS	
	Rubber Production Mismanagement	
	(D. Melikov; SOTSIALISTICHESKAYA INDUSTRIYA, 8 Jan 84)	92
	Effect of Plastic Lubricants and Their Components on Changes	
	in Composition of Rubbers and Resins (G. F. Ogorodnikova, V. V. Sinitsyn; KAUCHUK I REZINA,	
		94
	Properties of Resin and Resin Mixtures Based on Chlorosulfonated Polyethylene With Magnesium Sulfide	
	(A. F. Nosnikov, G. A. Blokh; KAUCHUK I REZINA, No 12,	
	Dec 83)	94
	Synthesis and Use of Diisopropylnaphthalene as Rubber Plasticizer (M. A. Polyak, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH	
	ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, NO 9.	
	Sep 83)	95
		-

WATER TREATMENT

	Flotation Removal of Cyanide Ions From Industrial Waste Waters	
	(I. M. Yevtyugina, et al.; KOKS I KHIMIYA, No 1, Jan 84)	96
	Clarification of Circulating Water at Gas Works	
	(V. M. Voronina, et al.; KOKS I KHIMIYA, No 1, Jan 84)	96
	Purification of Sewage From Zinc Using Organophosphoric	
	Complexons	
	(L. D. Arsenova, et al.; KHIMICHESKAYA PROMYSHLENNOST',	
	No 12, Dec 83)	97
MISC	ELLANEOUS	
	Specifics of EPR Spectra of Substituted Orthobenzosemiquinolate	
	Antimony Dichloride Complexes	
	(A. K. Chekalov, et al.; DOKLADY AKADEMII NAUK SSSR,	
	No 1, Jan 84)	98
	Influence of Silver Concentration on Optical and Technological	
	Properties of Lithium-Aluminum-Silicate Light-Sensitive Glass	
	(A. I. Berezhnoy, et al.; DOKLADY AKADEMII NAUK SSSR,	
	No 1, Jan 84)	98

USSR REPORT CHEMISTRY

CONTENTS

ALKALOIDS

	Polybuffer Separation of Total Indole Alkaloids from	
	Herbaceous Pefiwinkle (Vinca Herbacea Waldest et Kit.)	
	(V.Yu. Vachnadze, M.M. Mudzhiri, et al.; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	1
	Alkaloids From Conjum Maculatum L.	
	(Yu.D. Sadykov, M. Khodzhimatov; DOKLADY	
	AKADEMII NAUK TADZHIKSKOY SSR, No 8, Aug 83)	1
ANALY"	TICAL CHEMISTRY	
	Synthesis and Physical Chemical Properties of Polymeric Phosphine Oxide	
	(B.N. Laskorin, A.V. Kirsanov, et al.; ZHURNAL	
	PRIKLADNOY KHIMII, No 1, Jan 84)	3
	Quality Control of Grain Infestation by Electron Paramagnetic Resonance	
	(P.M. Solozhenkin, I.S. Malyavin; et al.; BOKLADY AKADEMII NAUK TADZHIKSKOY SSR, No 8, Aug 83)	3
	Study of Formation Conditions of Powdery Materials Without Use of Polymer Binders	
	(A.N. Antonov, V.A. Timonin, et al.; KHIMIYA TVERDOGO	
	TOPLIVA, No 1, Jan-Feb 84)	4
	Study of Structural and Property Changes of Pyrolytic	
	Graphite Resulting From Neutron Irradiation	
	(Yu.S. Virgil'yev, Ye.I. Kurolenkin; et al.; KHIMIYA	
	TVERDOGO TOPLIVA, No 1, Jan-Feb 84)	5
	Photoionization Method and Device For Gas Analysis	
	(T.B. Aliyev; ZHURNAL ANALITICHESKOY KHIMII, No 1,	
	Jan 84)	5

	Evaluation of Reliability of Network Laboratories of State Committee for Nydro-Meteorology in Monitoring Soil Contamination by Organic Chloride Pesticides (Yu.S. Dykhalin, E.I. Babkina, et al.; ZHURNAL	
	ANALITICHESKOY KHIMII, No 1, Jan 84)	6
BIOCHEM	ISTRY	
	Filtration of Physiologically Active Liquids Through Phenylone Membranes	
	(L.K. Shatayeva, S.D. Stroganova, et al.; ZHURNAL PRIKLADNOY KHIMII, No 1, Jan 84)	7
CATALYS	IS	
	Some Features of Catalytic Activity of Cobalt Systems in Hydrocarbon Synthesis from CO and H2	
	(A.L. Lapidus; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 1, Jan 84)	8
	Activity and Selectivity of Dealuminized Zeolite Catalysts, Part 2: Activities of Dealuminized Type Y Zeolites and Mordenite in Cracking Normal Hydrocarbons	
	(A.M. Tsybulevskiy, A.L. Klyachko, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 12, Dec 83)	9
	Palladium on Poly Benzo([Bis (Benzimidazolo) Phenanthroline [Dione)as Catalyst for Hydrogenation of Unsaturated Compounds	
	(A.A. Belyy, L.G. Chigladze, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 12, Dec 83)	9
	Surface Composition of Dealuminized Mordenites and Catalytic Activity in Xylene Transformation	
	(Kh.M. Minachev, Ye.S. Shpiro, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 12, Dec 83	10
	Kinetics of Oxidative Acetoxylation of Propylene on Palladium-Cupper Zeolite Catalysts	
	(Kh.M. Minachev, O.M. Nefedov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 12, Dec 83)	10
		10
	Study of Catalytic Activity of Natural Zeolite From Aydag Deposit Azerbaijan SSR	
	(M.R. Musayev, K.G. Mirzoyeva; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 3, May-Jun 83)	11
	Physical Chemical and Catalytic Properties of Be-Mo and Ga-Mo Oxide Systems in Oxidation Reactions of Low Molecular Olefins	
	(O. Rademakher, N.Kh. Allakhverdova; AZERBAYDZHANSKIY	11

	Effects of Additions of Molybdenum Trioxide on Catalytic	
	Properties of Aluminum Oxide in Butylene Oxidation Reactions	
	(M.M. Agaguseynova, G.I. Babayev, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 3,	
	May-Jun 83)	1
	Catalysts for Methane Reduction of Nitrogen Oxides	
	(I.A. Mal'chevskiy, V.M. Vlasenko, et al.;	
	KHIMICHESKAYA TEKHNOLOGIYA, No 1, Jan-Feb 84)	13
	in the control of the	-
	Regulation of Porous Structure of Industrial Aluminum Oxide	
	By Hydrothermal Method	
	(V.I. Zelentsov, V.M. Chertov; KHIMICHESKAYA	
	PROMYSHLENNOST', No 1, Jan 84)	13
	Passivation and Reduction of Nickelzeolite Catalysts	
	(A.A. Galinskiy, P.N. Galich; UKRAINSKIY	
	KHIMICHESKIY ZHURNAL, No 2, Feb 84)	15
	REPRESENTE PROPERTY NO 2, FED 04/	
	Hydration of Acrylonitrile on Copper-Chromium Catalysts	
	(Amankona Ofori Jozef, I.O. Mikhalishin,	
	et al.; KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 1.	
	Jan 84)	14
	P	
	Preparation and Properties of Porous Carriers for High	
	Temperature Catalysts (V.S. Komarov, O.F. Skurko, et al.; IZVESTIYA	
	AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK,	
		14
	NO 1, Jan-reb 04/	•
	Valency State of Platinum and Catalytic Activity of	
	Pt/Carrier Catalysts	
	(N.S. Kozlov, L.Ya. Mostovaya, et al.; IZVESTIYA	
	AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK,	
	No 1, Jan-Feb 84)	15
HPMT	CAL INDUSTRY	
пент	AL INDUSTRI	
	Overview of High-Level Chemistry	
	(M. Adzhiyev, M. Kuryacha; ZNANIYE-SILA, No 2, Feb 84)	16
	High Quality Aniline Spoiled	
	(G. Larinov; SOTSIALISTICHESKAYA INDUSTRIYA,	21
	19 Feb 84)	25
	Caustic Soda Plant Starts Up in Kalush	
		27
	Research In Organic Chemistry Oriented Toward Industrial	
	Application	24
	(SCIENCE AND LIFE, 21 Feb 84)	28

	Trapping of Ammonia From Industrial Gasses	
	(G.D. Kharlampovich, T.M. Zakamennykh, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 1, Jan 84)	30
	Equipment for Utilization of Heat of Distillation Liquid From Production of Sodium Carbonate	
	(G. Gorshkov, A.V. Popov, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 1, Jan 84)	30
	Hydrogen Sources For Laboratory Utilization	
	(V.S. Luk'yanchikov; KHIMICHESKAYA TEKHNOLOGIYA,	
	No 1, Jan-Feb 84)	31
	Contribution of Uralkhimmash Production Association in Implementing Food Program	
	(V.M. Makarov; KHIMICHESKOYE I NEFTYANOYE	
	MASHINOSTROYENIYE, No 1, Jan 84)	31
	Cellular Heat Exchanger For Low Pressure Cryogenic System	
	(I.N. Zhuravleva, Ye.V. Onosovskiy, et al.;	
	KHINICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE, No 1,	
	Jan 84)	32
	Rationality of Air Conditioning Under Various Climatic Conditions	
	(Yu.D. Gubernskiy, D.I. Ismaylova, et al.; VODOSNABZHENIYE I SANITARNAYA TEKHNIKA, No 2, Feb 84)	32
	Establishing Maximum Permissible Emissions From Low Lying Industrial Sources	
	(V.S. Nikitin, L.V. Plotnikova, et al.;	
	VODOSNABZHENIYE I SANITARNAYA TEKHNIKA, No 2, Feb 84)	33
	Air Distribution With Concentrated Venting of Air From Room	
	(L.I. Neymark, G.M. Pozin; VODOSNABZHENIYE I	
	SANITARNAYA TEKHNIKA, No 2, Feb 84)	33
COAL GA	ASIFICATION	
	Glue-Fastened Bridge	
	(MOSCOW NEWS, No 10, 18-25 Mar 84)	34
	Change in Structural Parameters of Coke Coal Under	
	Influence of Y-Irradiation	
	(L.B. Krichko, T.M. Khrenkova, et al.; KHIMIYA	
	TVERDOGO TOPLIVA, No 1, Jan-Feb 84)	35
	Extraction of Kansko-Achinsk Deposit Coals With Organic Solvents	
	(L.N. Yekaterinina, L.V. Vishnyakova, et al.; KHIMIYA TVERDOGO TOPLIVA, No 1, Jan-Feb 84)	35
	TVERDOGO TOPLIVA, No 1, Jan-Feb 84)	35

COMBUSTION

	During Combustion of Carbon Monoxide	
	(Yu.N. Shebeko, A.Ya. Korol'chenko, et al.; KHIMICHESKAYA FIZIKA, No 1, Jan 84)	36
		30
	Parameters of Combustion Waves Distributed Between Boundary Of Two Fuels	
	(O.I. Leypunskiy, V.N. Marshakov, et al.;	
	KHIMICHESKAYA FIZIKA, No 1, Jan 84)	36
	Photothermal Ignition In System C1F-C12-H2	
	(A.P. Suyetinov, A.P. Kharitonov, et al.; KHIMICHESKAYA FIZIKA, No 1, Jan 84)	37
	Retarding Detonation of Acetylene and Acetylene-Oxygen Mixtures	
	During Passage Through Narrow Openings	
	(A.Yu. Potapov; KHIMICHESKOYE I NEFTYANOYE	27
	MASHINOSTROYENIYE, No 1, Jan 84)	37
	Relationship Of Flash Point and Flammability Temperatures On	
	Composition of Aqueous Solutions of Amide Solvents	
	(V.A. Muravyeva, L.I. Kudryavtseva; KHIMICHESKIYE VOLOKNA	
	No 1, Jan-Feb 84)	38
ELEC	TROCHEMISTRY	
	Cathode and Anode Processes In Electrodeposition of Shiny Tin-Lea	d
	Alloys with Novel Shine-Forming Additive N-3	
	(K.M. Tyutina, L.V. Kosmodamianskaya, et al.;	
	ZHURNAL PRIKLADNOY KHIMII, No 1, Jan 84)	39
	Effect of Low Temperatures On Anode Solution of	
	Platinum-Titanium Anodes In Sea Water	
	(N.Ya. Kovarskiy, T.A. Arzhanova, et al.; ZHURNAL	
	PRIKLADNOY KHIMII, No 1, Jan 84)	39
	Magnetic Properties Of Organic Radicals and Routes To	
	Organic Ferromagnetics	
	(A.L. Buchachenko; KHIMICHESKAYA FIZIKA, No 1, Jan 84)	40
	Effect of pH on Adsorptive and Inhibitive Properties of	
	Six-Membered Heterocyclic Nitrogen Compounds (Quinoline)	
	(M.A. Loshkarev, L.V. Rysakova; UKRAINSKIY	
	KHIMICHESKIY ZHURNAL, No 2, Feb 84)	40
	Electrical Conductivity of Ferrisilica Gel	
	(G.M. Kozub, V.A. Tishchenko, et al.; UKRAINSKIY	
	KHIMICHESKIY ZHURNAL, No 2, Feb 84)	41

FERTILIZERS

USSR Agricultural-Industrial Plan For 1984 (EKONOMICHESKAYA GAZETA, No 5, Jan 84)	42
Mineral Fertilizer Production Plans Of USSR For 1984 (A.G. Petrishchev; EKONOMICHESKAYA GAZETA, No 5, Jan 8	34) 44
USSR Agrochemical Subdivision Formed (EKONOMICHESKAYA GAZETA, No 5, Jan 84)	49
Fertilizer Production Overfulfilled (N. Kernoga; SOTSIALISTICHESKAYA INDUSTRIYA, 18 Feb 84)	51
Use Of Fat Residue Emulsion For Water Removal From Potassium Ore Enrichment Products (F.F. Mozheyko, Z.I. But'ko; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 1, Jan-Feb*84)	52
INORGANIC COMPOUNDS	
Study of Ytterbium Iodination (A.K. Molodkin, A.M. Karagodina, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 1, Jan 84)	53
Specific Heat and Thermodynamic Properties of Potassium Perchlorate (V.L. Zalukayev, V.Ye. Gorbunov, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 1, Jan 84)	53
Thorium Oxopertechnetate and Thorium Oxoperrenate (L.L. Zaytseva, A.Yu. Vakhrushin; ZHURNAL NEORGANICHESKOY KHIMII, No 1, Jan 84)	54
Influence of Nitrates of Alkali Metals on Boric Acid Solubility	
(R.S. Tsekhanskiy, V.G. Skvortsov, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 1, Jan 84)	54
Effect of Lithium Oxide on Glass Forming System and Certain Other Properties of Glasses in R ₂ O - SiO ₂ - TiO ₂ - ZrO ₂ (A.I. Brazgovskaya, L.G. Khodskiy; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 1, Jan-Feb 8	34) 55
NITROGEN COMPOUNDS	
New Ways of Utilizing Aliphatic Nitrocompounds In Organic Synthesis	
(V.A. Tartakovskiy; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 1, Jan 84)	56

ORGANOMETALLIC COMPOUNDS

	Reactions Of Phosphorylated Thioacetamines With Mercuric	
	Oxide and Nucleophylic Reagents	
	(T.Yu. Dol'nikova, V.A. Kozlov, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	57
	Obsiding Right, No 1, Jan 64/	31
ORGAN	OPHOSPHOROUS COMPOUNDS	
	Triad Tautomerism of Thiophosphoryl-Mercaptoilides	
	(T.A. Mastryukova, I.M. Aladzheva, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	58
	Reactions Of Derivatives Of P(III) Acids With Thicketones	
	and Properties of Addition Products	
	(M.G. Zimin, A.R. Burilov, et al.; ZHURNAL OBSHCHEY	
	KHIMII, No 1, Jan 84)	58
	Alkyl(Trimethylsilyl)-alpha-(Trimethylsilyloxy)Alkylphosphonates	
	and Products of Their Desilylation	
	(L.V. Nesterov, N.A. Aleksandrova; ZHURNAL OBSHCHEY	
	KHIMII, No 1, Jan 84)	59
	Reactions Of Dimethylphosphorous Acid With Nucleophilies of	
•	Varying Rigidity and Structure of Sodium Dimethylphosphite in	
	Methanol Solution	
	(L.V. Nesterov, N.Ye. Krepysheva; ZHURNAL OBSHCHEY	
	KHIMII, No 1, Jan 84)	59
	Derivatives of Dimethylchlorosilylmethylphosphonic Acid	
	(N.I. Liptuga, V.V. Yaremenko; ZHURNAL OBSHCHEY	
	KHIMII, No 1, Jan 84)	60
	RHIMII, NO 1, Salt 04/	00
	Permutated Isomerization of Hexacoordinated Phosphorous in	
	N, N-Dimethylbenzamidinium Tetrafluorophosphate Into	
	Tetragonal Bipyramids	
	(V.V. Negrebetskiy, V.I. Kal'chenko, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	60
	Equilibrium CH-Acidity of Some Methylenephosphoric Compounds	
	and Phosphorus-Containing Triphenylmethanes	
	(M.I. Terekhova, N.G. Osipenko, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	61
	Beta-(Thienyl-2)Vinyldichlorophosphine and Some of Its Reactions	
	(V.K. Khayrullin, R.R. Shagidullin, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	61
	Thermal Rearrangement of Sioxyphenyleneisocyanates	
	(N.L. Chikina, Yu.V. Kolodyazhnyy, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	62

	New Representative of Diazadiphosphetidenes of Bipolar Structure	
	(L.P. Filonenko, M.I. Povolotskiy, et al.; ZHURNAL OBSHCHEY KHIMII, No 1, Jan 84)	62
	Formation of Compounds of Penta and Hexa-Coordinated	
	Phosphorus in Reactions of Trialkyltrithiophosphites with Pyrocatechin	
	(V.P. Kostin, O.G. Sinyashin, et al.; ZHURNAL OBSHCHEY KHIMII, No 1, Jan 84)	63
	Reaction of Chlorophosphines with Trichloroacetic Acid	
	OBSHCHEY KHIMII, No 1, Jan 84)	63
	Synthesis of New Phosphorus-Containing Poylhedric Compound 2-Phenyl2-Phosphaadamantane-4,8-Dione 2-Oxide	
	(V.P. Kukhar', V.N. Zemlyanoy, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	64
	Bisphosphorylation of N-Vinyl-N-Chlorovinylamines on Basis of N-Vinyl-N-Butylacetamide	
	(V.G. Rozinov, L.P. Izhboldina, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	64
	Phosphorylation of N-(beta-Oxyethyl)-2-Pyrrolidone	
	(P.A. Gurevich, V.V. Kiselev, et al.; ZHURNAL OBSHCHEY KHIMII, No 1, Jan 84)	65
	2-X-4-Methoxy-4-OXO-1,3,2,4-DioxadiphosphorinanesNew	
	Class of Diphosphoric Six-Membered Heterocyclic Compounds	
	(M.B. Gazizov, V.M. Zakharov, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	65
	Synthesis of N-Substituted alpha-Aminoarylmethanepropadiene- phosphinic Acids	
	(V.V. Belakhov, V.I. Yudelevich, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 1, Jan 84)	66
ETR	OLEUM PROCESSING TECHNOLOGY	
	Study of Propane Dehydrogenation Reactions Over Alumina- Chromia-Potassia Catalyst	
	(B.A. Dadashev, A.A. Sarydzhanov, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 3,	
	May-Jun 83)	67
	Electrochemical Method For Separating Iodine From Well Waters Through Iodates	
	(A.L. Shabanov, R.A. Rasulbekova, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 3,	
	May-Jun 83)	67

	Alkylation Of Benzene With Alpha-Olefins Over Al + CC14 Catalyst System	
	(M.N. Magerramov, E.N. Usubova, et al.; DOKLADY AKADEMII NAUK AZERBAYDZHANSKOY SSR, No 8, Aug 83)	68
	Determining Optimum Lubricant Consumption For Compressor Cylinders of High Pressure Polyethylene Production Equipment (A.M. Zavoyko, I.I. Novikov, et al.; KHIMICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE, No 1, Jan 84)	68
PHARM	ACOLOGY AND TOXICOLOGY	
	Intermolecular Reactions and Biological Activity of Chlorine	
	Containing Compounds (V.K. Mukhomorov; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL,	70
	No 1, Jan 84)	70
	Synthesis and Biological Activity of Organylthioselenides (N.K. Gusarova, E.E. Kuznetsova, et al.; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	70
	Quantum-Chemical Study of Antitumor and Toxic Activities of Phenyltriazines	
	(S.M. Zavoruyev; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	71
	Synthesis and Chemotherapeutic Activity of Some New p-Sulfamoylbe (Phenethyl) Amides of Benzofuran-2-Carboxylic Acid Against Staphylococcus Infection	nzy
	(M.A. Kaldrikyan, V.A. Geboyan, et al.; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	71
	Synthesis and Antisilicotic Activity of N-Vinylpyrrolidone and Vinylglycidyl Ethylene Glycolate Copolymers	
	(L.V. Morozova, T.T. Minakova, et al.; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	72
	Pharmacological Characteristics of Derivatives of Benzo[f] Quinoline	
	(V.I. Kuleshov, N.C. Kozlov, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK,	70
	No 1, Jan-Feb 84)	72
	Synthesis and Pharmacological Activity of Quaternary Ammonium Salts of Certain Bisindoles and Pyrroloindoles of Various Structure	
	(KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 1, Jan 84)	73

.

POLYMERS AND POLYMERIZATION

Organic Metals and Semiconductors	
(A. Matnishyan; KOMMUNIST, 14 Feb 84)	74
New Polyamide Film Developed by Plastmassy	
(SOTSIALISTICHESKAYA INDUSTRIYA, 26 Jan 84)	77
Frost-Resistant Polymer	
(A. Orlov; SOVETSKAYA ROSSIYA, 13 Feb 84)	78
Effect of Various Parameters of Continuous Preparation Process of Ethylene Vinyl Acetate Copolymers On Their Molecular Mass Distribution	
(R.A. Terteryan, V.I. Ivanov, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 1, Jan 84)	81
Study of Low Temperature Carbonization of Porous Copolymers of Styrene and Divinylbenzene	
(V.G. Aleynikov. T.N. Burushkina, et al.; KHIMICHESKAYA	
TEKHNOLOGIYA, No 1, Jan-Feb 84)	81
Formation of Fibrillated Films From Mixed Polymer Melts: Polycaproamide-Polystyrene, Polycaproamide-Polyethylene (V.I. Boyko; KHIMICHESKAYA TEKHNOLOGIYA, No 1,	
Jan-Feb 84)	82
Features of Chain Growth and Fracture During Graft Polymerization Of Methylmethacrylate On Inorganic Materials (A.O. Stepanyan, M.Yu. Zaremskiy, et al.; DOKLADY	1
AKADEMII NAUK SSSR, No 3, Jan 84)	82
One Manner Of Transition From Inorganic Polymer Structure To Organic Structure	
(B.P. Tara evich, O.S. Sirotkin, et al.; KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 1, Jan 84)	83
Study of Toluene Sorption By Grafted Copolymers of Polyamide-6 With Styrene	
(G.M. Pavlyuchenko. V.M. Siderko, et al.; KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 1, Jan 84)	83
Development Of Repair Technology For Large-Sized Objects Made Of Cast Monolithic Polyurethanes	
(N.M. Kolesnikov, I.D. Mikul'chik; KAUCHUK I REZINA,	
No 1, Jan 84)	84
Texturizing Synthetic Fibers In Stream Of Heated Gas (A.A. Volkhonskiy, S.G. Lev; KHIMICHESKIYE VOLOKNA,	
No 1. Jan-Feb 84)	84

Fiber	
(T.A. Litvinova, T.I. Bogacheva, et al.; KHIMICHESKIYE	
VOLOKNA, No 1, Jan-Feb 84)	85
Utilizing Boron-Organic Compounds For Preparation Of	
Fire-Resistant Polycaproamide Fibers	
(A.V. Efros, N.G. Butylkina, et al.; KHIMICHESKIYE	
VOLOKNA, No 1, Jan-Feb 84)	85
Texturizing Features of Complex Carbimide Threads	
(V.A. Ivashova, V.A. Usenko, et al.; KHIMICHESKIYE	
VOLOKNA, No 1, Jan-Feb 84)	86
Stretching Texturized Capron Threads On Single Process	
Friction Machines	
(I.V. Radchenko, V.A. Usenko; KHIMICHESKIYE VOLOKNA,	
No 1, Jan-Feb 84)	86
Multicolored Threads	
(A.I. Yatskyavichene, M.A. Tsinelene, et al.;	
KHIMICHESKIYE VOLOKNA, No 1, Jan-Feb 84)	86
Polymerization Of Vinyl Polymers Initiated By Acetylenic	
Chlorine-Containing Peroxides	
(I.G. Tishchenko, S.G. Stepin, et al.; IZVESTIYA	
AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK,	
No 1, Jan-Feb 84)	87
RADIATION CHEMISTRY	
Radiation Purification Of Effluent From Cyanides	
(Ye.P. Petryayev, L.A. Kiseleva, et al.;	
KHIMICHESKAYA PROMYSHLENNOST', No 1, Jan 84)	88
RUBBER AND ELASTOMERS	
Regulation Of Technological Characteristics Of Butyl	
Rubber Packed With Asbestos Additives	
(N.N. Kruglitskiy, A.D. Kuznetsov, et al.; KHIMICHESKAYA	
TEKHNOLOGIYA, No 1, Jan-Feb 84)	89
Influence Of Lattice Thickness Of Rubbers Obtained Under High	
Pressure On Their Physico-Mechanical Properties	
(Yu.S. Zuyev, I.S. Yurovskaya, et al.; KAUCHUK I REZINA,	
No 1, Jan 84)	89
Predicting Useful Life Of Polyamide Base Rubber Fabric	
(S.S. Kuz'mina, T.V. Borodko, et al.; KAUCHUK I REZINA,	
No 1, Jan 84)	90

	Fire Hazard Of Rubberized Fabrics (A.P. Yevdakov, L.P. Vogman, et al.; KAUCHUK I	00
	REZINA, No 1, Jan 84)	90
	Effects Of Technical Grade Charcoal DG-100 and Zinc Oxide On Processes Of Mass Transfer Of Sulfenamide TS In Multilayered Rubber Objects	
	(N.I. Gracheva, A.Ye. Kornev, et al.; KAUCHUK I REZINA, No 1, Jan 84)	91
WATER T	TREATMENT	
	Characteristics of Waste Effluent In Epoxy Resin Production (T.F. Gumbatova, T.A. Osokina; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 3, May-Jun 83)	02
	ARIMICHESKII ZHUKNAL, NO 3, May-Jun 83)	72
	Decontamination of Divinyl Production Waste Effluent From Copper Salts	
	(M.Kh. Annagiyev, Z.G. Zul'fugarov, et al.; DOKLADY AKADEMII NAUK AZERBAYDZHANSKOY SSR, No 8, Aug 83)	92
	Optimization Of Water Treatment At Water Softening Stations Of Branch Enterprises	
	(I.G. Shimko, V.V. Shmatova, et al.; KHIMICHESKIYE VOLOKNA, No 1, Jan-Feb 84)	93
	Flotation Treatment of Industrial Waste Waters With Aid Of Hydrophobic Adsorbents	
	(Yu.F. Gladkikh, B.G. Sodnomov; VODOSNABZHENIYE I SANITARNAYA TEKHNIKA, No 2, Feb 84)	93
OOD CI	HEMISTRY	
	Formation Of Acetate Filaments In Nitrogen Stream	
	(D.N. Mukhiddinov, D.M. Luzhanskiy, et al.; KHIMICHESKIYE VOLOKNA, No 1, Jan-Feb 84)	94
ISCELI	LANEOUS	
	Leaching Kinetics Of Liquefying Silicate Glasses	
	(I.K. Meshkovskiy; ZHURNAL PRIKLADNOY KHIMII,	05
	No 1, Jan 84)	95
	Measuring Coefficient Of Diffusion Of Silver In Polycrystalline Superionic Conductor Ag _x TiS ₂	
	(A.Ye. Ukshe, L.V. Sherstnova, et al.; KHIMICHESKAYA FIZIKA, No 1, Jan 84)	95
		23
	Chemiluminescence In Catalyzed Disintegration Of Peroxides By Crystalline Substance Surface As Cause Of Crystalloluminescence (G.A. Tolstikov, G.L. Sharipov, et al.; DOKLADY AKADEMII	
		96

USSR REPORT CHEMISTRY

CONTENTS

A	T	D	~	0	01	0
Λ	Ŀ	к	v	2	U	LS

	Electrofilters from Polymer Materials (A. A. Moshkin, A. P. Losoto, et al; KHIMICHESKOYF I	
	NEFTYANOYE MASHINOSTROYENIYE, No 2, Feb 84)	1
NALYT	CICAL CHEMISTRY	
	Use of Reaction Gas Extraction in Atomic-Emission Analysis with Inductively Coupled Plasma	
	(L. B. Kuznetsov, V. N. Belyayev, et al; ZHURNAL	
	ANALITICHESKOY KHIMII, Vol 39, No 2, Feb 84)	2
	Regularities of Thermal Dissociation Process of Oxides in Graphite Ovens for Atomic Absorption Analysis	
	(B. V. L'vov and G. Kh. Fernandes; ZHURNAL	
	ANALITICHESKOY KHIMII, Vol 39, No 2, Feb 84	2
	Use of Carboxylic Acids as Complex Forming Reagents in Ion Exchange Chromatography	
	(I. F. Zimina, A. I. Ignatovich, et al; ZHURNAL	
	ANALITICHESKOY KHIMIL, Vol 39, No 2, Feb 84	3
	Neutron Activation Analysis of High Purity Aluminum: Radiochemical Variety	
	(M. M. Usmanova, R. A. Kuznetsov, et al; ZHURNAL	
	ANALITICHESKOY KHIMII, Vol 39, No 2, Feb 84)	4
	Luminescence of Ytterbium Complexed with 1-(2-Pyridylazo)-	
	2-Naphthol and Its Use in Analysis	
	(Yu. V. Korovin, S. B. Meshkova, et al; ZHURNAL	
	ANALITICHESKOY KHIMII, Vol 39, No 2, Feb 84	4

Determination of Microimpurities of Iridium by Laser Atomic Fluorescence Analytical Method (M. A. Bol'shov, A. V. Zybin, et al; ZHURNAL	
ANALITICHESKOY KHIMII, Vol 39, No 2, Feb 84)	5
BIOCHEMISTRY	
Electrochemical Behavior of Biologically Active Derivatives of Butenedioic Acid Heterylamides	
(V. A. Shapovalov, V. I. Kabachnyy, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	6
Specificity of Subtilisin Carlsberg in Reaction with O-n-Aklyl-p-Nitrophenyl Methylphosphonates	
(A. Aaviksaar, M. Peyps, et al; IZVESTIYA AKADEMII NAUK ESTONSKOY SSR: KHIMIYA, Vol 33, No 1, Jan-Feb-Mar 84)	6
CATALYSIS	
Effect of Cobalt Additives on Physical Chemical and Catalytic Properties of Aluminum Platinum Catalysts in Reactions of Dehydrocyclization and Dehydrogenation of n-Hexane	
(N. K. Nadirov, L. F. Lykova, et al; NEFTEKHIMIYA, Vol 24, No 1, Jan-Feb 84)	8
Synthesis of Hydrocarbons from Co and H ₂ over Co-Alumino- calcium Catalysts, Modified with Cupric Oxide (A. L. Lapidus, I. A. Bruk, et al; NEFTEKHIMIYA, Vol	
24, No 1, Jan-Feb 84)	9
Properties of Rhenium-Coated Catalysts in Hydrogenation of Products of Hydroformylization of Propylene	
(M. A. Ryashentseva, Kh. M. Minachev, et al; NEFTEKHIMIYA, Vol 24, No 1, Jan-Feb 84)	9
New Heterogeneous Metal Complex Catalysts for Hydrosilylation Reactions	
(M. G. Pomerantseva, Z. V. Belyakova, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	10
Complexes of Palladium (II) with Certain Azo Compounds and Their Catalytic Properties	
(L. A. Safronova, A. D. Shebaldova, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	10
CHEMICAL INDUSTRY	
Chemical Production Increasing (SEL'SKAYA ZHIZN', 1 Feb 84)	11

COAL GASIFICATION

	Removal of Hydrogen Sulfide in Industrially Refined Shale Generator Gas To Obtain Finished Products	
	(Yu. M. Afanasiyev, S. M. Golyand, et al; KHIMICHESKOYE I NEFTYNOYE MASHINOSTROYENIYE, No 2, Feb 84)	12
-	Phenol Composition of Heavy Shale Oil Resins (L. Nappa, I. Klesment, et al; IZVESTIYA AKADEMII NAUK ESTONSKOY SSR: KHIMIYA, Vol 33, No 1, Jan-Feb-Mar 84)	12
	Catalysis and Inhibition of Thermal Destruction of Hydro- carbons	
	(A. Aarna, V. Vasil, yev, et al; IZVESTIYA AKADEMII NAUK ESTONSKOY SSR: KHIMIYA Vol 33, No 1, Jan-Feb-Mar 84)	13
COMBUS	TION	
	Patterns of Accumulation of Reaction Products in Stabilized Cool Propane Flame	
	(M. DzH. Pogosyan, P. S. Gukasyan, et al; ARMYANSKIY KHIMICHESKIY ZHURNAL, No 1, Jan 84)	14
FERTIL	IZERS	
	Fertilizer Losses and Chaotic Delivery (V. Yapparov, B. Maksimov, et al; SOTSIALISTICHESKAYA INDUSTRIYA, 17 Mar 84)	15
	Chemical Plant on Stream (SEL'SKAYA ZHIZN', 29 Feb 84)	19
	New Fertilizers for Central Asian Republics (V. F. Karmyshov; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 1, Mar 84)	20
ORGANO	METALLIC COMPOUNDS	
	Complex Compounds of Palladium (IV) with Arylphosphines (T. Ye. Busygina, V. K. Polovnyak, et al; ZHURNAL OBSHCHEY KHIMIL Vol 54, No 2, Feb 84)	21
	Synthesis of Aryltrimethylstannanes by Reaction of Me;SnSnMe; with ArI Catalyzed by 'Ligandless' Palladium	
	(N. A. Bumagin, et al.; DOKLADY AKADEMII NAUK SSSR, Vol 274, No 5, Feb 84)	21
ORGANOI	PHOSPHORUS COMPOUNDS	
	New Type of Furanose Bicyclophosphites (M. P. Koroteyev, A. I. Lutsenko, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	23

Preparation and Properties of 2-Chloro-1-Acylaminovinyltri- phenylphosphonic Acid Chlorides	
(V. S. Brovarets, O. P. Lobanov, et al; ZHURNAL	
OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	23
Acylation of Dialkylphosphites with Trifluoroacetic Anhydride: Trifluoroacylphosphites and Trifluoroketophosphonates	
(Ye. N. Ofitserov, V. F. Mironov, et al; ZHURNAL	
OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	24
N-Nitroaryl-Substituted Phosphazides and Phosphazo Compounds, Part 1: Acid Decomposition of Phosphazides	
(P. P. Onys'ko, N. V. Proklina, et al; ZHURNAL OBSHCHEY	
KHIMII, Vol 54, No 2, Feb 84)	24
Arylbis(heptafluoropropyl)phosphine Oxides: Electronic Nature of P(0)(C ₃ F ₇) ₂	
(L. M. Yagupol'skiy, N. V. Pavlenka, et al; ZHURNAL	
OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	25
Chemical Conversions of Phosphorus Acid Hydrazides, Part 3: Reaction of Phosphorus Acid Hydrazides with Steroids and	
Some Physical-Chemical Properties of Reaction Products	
(V. M. Ovrutskiy, L. D. Protsenko, et al; ZHURNAL	
OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	26
Photoinitiated Addition of Phosphorus Tribromide to Alkoxyethenes	
(S. A. Shilov, M. V. Sendyurev, et al; ZHURNAL OBSHCHEY	
KHIMII, Vol 54, No 2, Feb 84)	26
Reaction of Acetals Containing Carbonyl Group at Alcohol Fragment with Pyrocatechinchlorophosphite in Presence of Trialkylphosphites	
(M. P. Gazizov, I. I. Shergina, et al; ZHURNAL OBSHCHEY	
KHIMII, Vol 54, No 2, Feb 84)	27
RHIMIL, VOI 34, NO 2, FED 64)	21
Reactions of Dimethyliaocyanatophosphite with Diisopropyl- trifluoroacetylphosphonate	
(I. V. Konovalova, N. M. Kashtanova, et al; ZHURNAL	
OBSHCHEY KHIMIL, Vol 54, No 2, Feb 84)	27
New Directions in Reactions of Silylphosphites with Acetyl Chloride	
(V. A. Al'fonosov, G. U. Zamaletdinova, et al; ZHURNAL	
OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	28
1,2-Bis[1-(2,2,6,6-tetramethylpiperidino)diphosphene	
(V. D. Romanenko, Ye. O. Klebanskiy, et al; ZHURNAL	
OBSHCHEY KHIMII Vol 54, No 2, Feb 84)	28

	Sterically Hindered Amides of Phosphonic Acids and Some of Their Heteroorganic Derivatives	
	(Yu. A. Veyts, M. B. Gurov, et al; ZHURNAL OBSHCHEY KHIMII,	
	Vol 54, No 2, Feb 84)	,
	Reactions of O,C-dialkyldithio Acids of Phosphorus with Tetra- cyanoalkanones	
	(O. Ye. Nasakin, Ye. G. Nikolayev, et al; ZHURNAL	
	OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	29
	Two Directions of Reactions of N-(ω -Chloroalky1)-2-Pyrrolidones with Triethylphosphite	
	(P. A. Gurevich, V. V. Kiselev, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	30
	Vinylthiochlorophosphoranes	
	(M. N. Danchenko and A. D. Sinitsa; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	30
	Reaction of Substituted α -Nitroolefins with Phosphorus Penta- chloride	
	(R. Z. Fakhrutdinov, L. Ye. Ryabova, et al; ZHURNAL OBSHCHEY KHIMII, Vol 54, No 2, Feb 84)	31
PESTIC	CIDES	
	Using Meldrum's Acids in Synthesis of Low Molecular Weight Bioregulators, Part 1: Synthesis of Natural Methylalkyl- ketones Which Are Contact Toxins for Insects (T. P. Yemel'yanova, G. M. Segal', et al; BIOORGANICHESKAYA KHIMIYA, Vol 10, No 1, Jan 84)	32
PETROL	LEUM PROCESSING TECHNOLOGY	
	Colloid Chemistry of Petroleum and Petroleum Products (G. I. Fuks; KOLLOIDNAYA KHIMIYA NEFTI I NEFTEPRODUKTOV (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE: SERIYA "KHIMIYA"),	
	No 2, Feb 84)	33
	Reaction of Dithio Acids of Phosphorus with Cumene Hydro- peroxide	
	(O. A. Cherkasova, N. A. Mukmeneva, et al; NEFTEKHIMIYA, Vol 24, No 1, Jan-Feb 84)	36
	Kenetics of Metallic Copper Catalyzed Decomposition of Hydro- peroxides Formed During Oxidation of Jet Fuel	
	(A. V. Gerasimova, N. S. Zvereva, et al; NEFTEKHIMIYA,	
	Vol 24, No 1, Jan-Feb 84)	36

	Catalytic Oxidation of Sulfides in 190-360°C Distillates of Crude Oils into Sulfoxides with Air Oxygen (A. V. Mashkina, A. Kh. Sharipov, et al; NEFTEKHIMIYA, Vol 24, No 1, Jan-Feb 84)	37
PHARM	MACOLOGY AND TOXICOLOGY	
	Synthesis, Complex Forming Properties and Antidotal Activity of N'-Allyloxyethylenetriamine-N,N,N",N"-tetracetic acid (L. I. Tikhonova, O. I. Samoylova, et al; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 2, Feb 84)	38
	Antimicrobial Properties of Some Heterocyclic Compounds and Chloromethyl-β-Arylaminovinylketones (N. G. Ppodanchuk, I. V. Megera, et al; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 2, Feb 84)	38
	Synthesis and Antiviral Activity of Silver and Cobalt Salts of Derivatives of p-Aminobenzenesulfonamides (A. Ye. Mil'grom, A. S. Chegolya, et al; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 2, Feb 84)	39
	Predicting Acute Toxicity of Organic Compounds on Basis of Methods of Sample Recognition (T. S. Solominova, G. G. Maksimov, et al; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 2, Feb 84)	39
	Increasing Microbial Purity of Nonsterile Medications, Raw Materials and Auxiliary Materials with Ultraviolet Light (A. D. Ageyenkov, A. S. Arutyunov, et al; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 2, Feb 84)	40
POLYM	MERS AND POLYMERIZATION	
	Polymers as Substitutes for Metal and Lumber (A. Musifulin; PLANOVOYE KHOZYAYSTVO, No 1, Jan 84)	41
	Polyacetylene and K (V. Mishin; KHIMIYA I ZHIZN', No 3, Mar 84)	51
	Liquid-Crystal Ridged Polymers in Electric Field (R. V. Tal'roze, V. V. Sinitsyn, et al; DOKLADY AKADEMII NAUK SSSR, Vol 274, No 5, Feb 84)	61
	Synthesis of Furan Oligourethanes from 1-(α-furyl)-2,2- dimethyl-1,3-propanediol and 2,4-Toluylenediisocyanate (F. M. Shakirov, F. A. Magrupov, et al; UZBEKSKIY	4.
	KHIMICHESKIY ZHURNAL, No 1, Mar 84)	61

	Preparation of Water-Soluble Polyelectrolyte from Poly- acrylonitrile Polymer by Hydrodynamic Apparatus (S. G. Kamaryan, L. Ye. Kushcheva, et al; UZBEKSKIY	
	KHIMICHESKIY ZHURNAL, No 1, Mar 84)	62
DI	ATION CHEMISTRY	
,	Extraction of Americium from Alkaline Salt Solutions with Alkylpyrocatechin	
	(Z. K. Karalova, L. M. Rodionova, et al; RADIOKHIMIYA, Vol 26, No 1, Jan-Feb 84)	63
	Extraction of Americium from Alkaline Solutions with Technical Mixture of Mono- and Didecylpyrocatechins	
	(Z. K. Karalova, L. M. Rodionova, et al; RADIOKHIMIYA,	
	Vol 26, No 1, Jan-Feb 84)	63
	Study of Processes of Ligand Exchange in Complexes of Uranyl with Amides of Phosphorus Acids in Aqueous Solutions	
	(V. V. Yakshin, N. L. Khokhlova, et al; RADIOKHIMIYA,	
	Vol 26, No 1, Jan-Feb 84)	64
	Experimental Approach to Chemical Identification of Element 107 as Ekarhenium, Part 2: Search for Isotopes of Element 107 Undergoing Spontaneous Fission in Reaction Products of Bk ²⁴⁹ + Ne ²² Using Thermochromatographic Method (I. Zvara, V. P. Domanov, et al; RADIOKHIMIYA, Vol 26,	
	No 1, Jan-Feb 84)	65
	Reduction of Plutonium (VI) in Nitric Acid Solutions Under a-Radiation	
	(N. N. Andreychuk, K. V. Rotmanov, et al; RADIOKHIMIYA, Vol 26, No 1, Jan-Feb 84)	65
	Combined Method for Determining Atomic Ratio of Oxygen to Metal in Mixed Oxide Uranium-Plutonium Fuel	
	(S. I. Korolev, A. Ya. Kuperman, et al; RADIOKHIMIYA, Vol 26, No 1, Jan-Feb 84)	66
	Method for Deep Purification of Neptunium From Micro Admixtures of Plutonium	
	(I. G. Tananayev, V. I. Dzyubenko, et al; RADIOKHIMIYA, Vol 26, No 1, Jan-Feb 84)	66
	Mechanisms of Post-Radiation Transformations in Alkaline- Phosphate Glasses Activated by Copper	
	(N. N. Vil'chinskaya, A. V. Dmitryuk, et al; DOKLADY	67

R

	Physicochemical Bases of Optimizing Extractant Structure for Regenerating Spent Atomic Power Plant Fuel (A. M. Rozen, V. S. Shmidt, et al; DOKLADY AKADEMII NAUK	
	SSSR, Vol 274, No 5, Feb 84)	67
	Macrocyclic Polyesters, Labeled with Tritium (L. A. Neyman, S. P. Antropova, et al; BIOORGANICHESKAYA KHIMIYA, Vol 10, No 1, Jan 84)	68
RUBBER	AND ELASTOMERS	
	Effect of Emulsion Polymerization Conditions on Properties of Carboxyl-Containing Acrylic Copolymer and Its Latex (B. L. Khavkina, V. B. Ryzhov, et al; KAUCHUK I REZINA, No 2, Feb 84)	69
	Interaction of Poly(oxyhydroxy)urethanes with Fillers (N. V. Ionina, I. I. Trostyanskaya, et al; KAUCHUK I	
	REZINA, No 2, Feb 84)	70
	Frost Resistance of Various Butadiene Rubbers (G. Ye. Novikova, Ye. D. Pankratova, et al; KAUCHUK I REZINA, No 2, Feb 84)	70
	Interaction of Fluoro Rubbers with Certain Organic Liquids (N. I. Lytkina, L. N. Vansyatskaya, et al; KAUCHUK I REZINA, No 2, Feb 84)	71
	Urethane Vulcanizing Agents and Vulcanization Accelerators for Chloroprene Rubber (I. P. Cherenyuk, and A. P. Avdeyenko; KAUCHUK I REZINA,	
	No 2, Feb 84)	71
	Using Azoperoxide To Obtain Porous Rubbers (G. A. Solov'yeva, V. I. Klochkov, et al; KAUCHUK I REZINA, No 2, Feb 84)	72
	Determining Content of Butadiene Piperylene Copolymer by Pyrolytic Gas Chromotography (S. P. Yevdokimova, E. V. Drozdova, et al; KAUCHUK I	
	REZINA, No 2, Feb 84)	72
WATER	TREATMENT	
	Practical Utilization of Sediments Containing Oxides of Heavy Metals	
	(V. M. Makarov, Ye. A. Indeykin, et al; KHIMIYA I TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	73

	Dyestuffs	
	(V. A. Kozhanov, N. A. Klimenko, et al; KHIMIYA I	
	TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	73
	Use of Magnesium Salts in Technology of Water Purification from Basic Dyes	
	(L. A. Kul'skiy, Z. N. Shkavro, et al; KHIMIYA I	
		74
	Separation of Fluorine During Waste Water Neutralization	
	Process in Production of Mineral Fertilizers	
	(S. N. Gayevoy, N. I. Mishin, et al; KHIMIYA I	
	TEXHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	74
	Electrochemical Purification of Waste Water from Organic and Mineral Substances	
	(T. T. Sobolevskaya, O. N. Khoroshilova, et al; KHIMIYA I TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	75
	Removing Hydrochloric Acid From Waste Effluent Containing Products of Organic Synthesis	
	(A. V. Kononov, et al.; KHIMIYA I TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	75
	Local Biological Treatment of Highly Concentrated Effluents Containing Volatile Matter	
	(G. A. Bystrov and M. P. Zaytseva; KHIMIYA I TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	76
	Change in Microbial Content in Water While Making It Potable (L. A. Kil'skiy, O. S. Savluk, et al; KHIMIYA I	76
	TEKHNOLOGIYA VODY, Vol 6, No 1, Jan-Feb 84)	76
MISCE	LLANEOUS	
	Photochemical Reaction of Triethylamine and Chloroform (Sh. A. Markaryan and N. M. Beyleryan; ARMYANSKIY	
	KHIMICHESKIY ZHURNAL, No 1, Jan 84)	77

USSR REPORT CHEMISTRY

CONTENTS

ALKALOIDS

Molecular Structure and Properties of Carbon Chain Fluorine-Containing Polymers	
(V.P. Privalko, A.M. Tarara, et al.; DOKLADY	
AKADEMII NAUK UKRAINSKOY SSR, SERIYA B:	
GEOLOGICHESKIYE, KHIMICHESKIYE I BIOLOGICHESKIYE	
NAUKI, No 3, Mar 84)	1
make, no s, mar officers and the second seco	•
Biosynthesis and Metabolism of Some Matrine Alkaloids	
in Goebelia Pachycarpa	
(V. A. Abdusalamov; KHIMIYA PRIRODNYKH SOYEDINENIY,	
No 1, Jan-Feb 84)	2
Alkaloids of Papaver Arenarium	
(I. A. Israilov, M. A. Manushakyan, et al.;	
KHIMIYA PRIRODNYKH SOYEDINENIY, No 1, Jan-Feb 84)	2
Alkaloids of Dicentra	
(I.A. Israilov, F.M. Helikov, et al.; KHIMIYA	
PRIRODNYKH SOYEDINENIY, No 1, Jan-Feb 84)	3
Alkaloids of Papaver Orientale	
(I. A. Israilov, M. A. Manushakyan, et al.;	
KHIMIYA PRIRODNYKH SOYEDINENIY, No 1, Jan-Feb 84)	3
New Species of Lectin-Containing Plants	
(S. V. Levitskaya, S. I. Asatov, et al.; KHIMIYA	
PRIRODNYKH SOYEDINENIY, No 1, Jan-Feb 84)	4

ANALYTICAL CHEMISTRY

Direct Determination of Total Acids in Oleoresins and Rosin of Conifers	
(V. P. Fadeyeva, G. N. Artemova, et al.; IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII NAUK SSSR: SERIYA	
KHIMICHESKIKH NAUK, No 2, Jan-Feb 84)	5
IR Spectroscopic Study of Carbon Catalyst	
(A. A. Larina, I. A. Tarkovskaya, et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 3, May 84)	5
Catalytic Effect of Phosphorus Dithioacids in Iodine-Azide Reaction	
(M. G. Gabdullin, A. R. Garifzyanov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	6
BIOCHEMISTRY	
Causes of Anthracosis	
(T. A. Kukharenko, S. S. Dinkelis; KHIMIYA TVERDOGO	
TOPLIVA, No 2, Mar-Apr 84)	7
Synthetic Antigens Based on Polymeric Derivatives of Coumarin	
(A. Z. Abyshev, S. S. Krylov; KHIMIYA PRIRODNYKH SOYEDINENIY, No 1, Jan-Feb 84)	7
CATALYSIS	
Testing Activity of Open-Pore Alumonickel-Molybdenum Catalysts During Hydropurification of Coal Distillates	
(A. A. Krichko, M. K. Yulin, et al.; KHIMIYA TVERDOGO TOPLIVA, No 2, Mar-Apr 84)	9
Co- and Ni-Containing Catalysts of Hydrocarbon Synthesis from Oxides of Carbon and Hydrogen Based on Calcium Aluminates	
(A. L. Lapidus, I. A. Bruk, et al.; KHIMIYA TVERDOGO TOPLIVA, No 2, Mar-Apr 84)	10
Catalyst Transformations During Catalytic Pyrolysis	
(E. G. Telyashev, R. Kh. Khatymov, et al.; KHIMIYA	
TVERDOGO TOPLIVA, No 2, Mar-Apr 84)	10
Study of Deactivation Processes of Platinum Catalysts for	
Post-Burning of Internal Combustion Engine Exhaust Gases	
(R.A. Gazarov, S.A. Safonov, et al.; ZHURNAL PRIKLADNOY KHIMII, No 2, Feb 84)	11
anapaguate paraman in an act UT/111111111111111111111111111111111111	4.4

Influence of Certain Admixtures in Feedstock on Work of Silver-on-Pumice Catalysts for Oxidation of Methanol	
(L.N. Kurina, I.D. Filicheva, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 2, Feb 84)	11
Kinetic Relationships in Conversion of n-Butanol and its	
Derivatives Over Molten K20-V20s-MoO2 Catalyst	
(I.V. Shakirov, A.N. Ketov, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 2, Feb 84)	12
Silver, Gold and Rhenium Supported on Magnesium Oxide as	
Catalysts in Hydrogenation Reactions of Acetylenic Compounds	
(D.V. Sokol'skiy, A. Ualikhanova; ZHURNAL	
PRIKLADNOY KHIMII, No 2, Feb 84)	12
Kinetics and Mechanism of Sodium Sulfide Oxidation with	
Molecular Oxygen in Presence of Copper Containing Ion Exchange Resin KB-4	
(Fung Ti Shi, A. N. Astanina, et al.; VESTNIK	
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1, Jan-Feb 84)	13
Role of Polymolecular Processes in Developing Zinc-Zeolite	
Catalysts for Formation of Q-Methylstyrene During Con- version of Cumene	
(Kao Khyu Tuan, Ngo Tkhi Tkhuan, et al; VESTNIK	
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1, Jan-Feb 84)	13
Treatment of Fe ₂ 0 ₃ /Si0 ₂ Catalysts During Polycondensation	
of Carbon Monoxide-Hydrogen Mixtures	
(V. S. Savel'yev, I. I. Kulakova, et al.; VESTNIK	- 4
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1, Jan-Feb 84)	14
Catalytic Conversion of 3-Alkoxythiolan-1,1,-Dioxides in Presence of Hydrogen	
(T. E. Bezmenova, A. V. Mashkina, et al.; KINETIKA	
I KATALIZ, No 1, Jan-Feb 84)	14
Replacement of Surface Nitrogen During Synthesis of Ammonia	
Over Industrial Catalyst	
(Ye. G. Boreskova, V. L. Kuchayev, et al.; KINETIKA	
I KATALIZ, No 1, Jan-Feb 84)	15
Isotope Exchange of Nitrogen and Synthesis of Ammonia Over Uranium Nitride	
(G. I. Panov, G. K. Boreskov, et al.; KINETIKA I	
KATALIZ, No 1. Jan-Feb 84)	15

Catalyst for Synthesis of Methanol	
(A. A. Dyatlov, V. Ye. Ostrovskiy; KINETIKA I KATALIZ, No 1, Jan-Feb 84)	16
Effect of Ni-Mo Components Content in Hydropurification Catalysts on Their Activity and Reaction with Aluminum Oxide Carrier	
(D. A. Agiyevskiy, V. I. Kvashonkin, et al.; KINETIKA I KATALIZ, No 1, Jan-Feb 84)	16
Formation of Porous Structure of Bismuth-Molybdenum Oxide Deposited on Silica Gel	
(Ye. L. Mikhaylenko, D. V. Tarasova; KINETIKA I KATALIZ, No 1, Jan-Feb 84)	17
Industrial Testing on Methane Conversion Catalyst GS-12 (E.F. Mikhaleva, A.P. Popova, et al.; KHIMICHESKAYA	
PROMYSHLENNOST', No 2, Feb 84)	17
Selecting Catalyst Carrier for Olefin Dimerization and Codimerization Processes (A.V. Timofeyev, V.G. Shumovskiy, et al.; KHIMICHESKAYA	
PROMY SHLENNOST', No 2, Feb 84)	18
Passivation of Nickel Catalysts (R.V. Chesnokova, A.A. Bondareva, et al.;	
KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	18
Influence of Acid and Alkaline Impurities on Activity of	
Low Temperature Carbon Monoxide Conversion Catalyst (L.A. Sukhoruchkina, T. A. Semenova; KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	19
CHEMICAL INDUSTRY	
Chemistry Minister Summarizes First-Quarter Production	
(V. V. Listov; EKONOMICHESKAYA GAZETA, No 19, May 84)	20
Modernization of Textile Industry Planned (V. Smirnov; SOTSIALISTICHESKAYA INDUSTRIYA,	
28 Apr 84)	26
Cybernetics in Chemical Technology (Viktor Vyacheslavovich Kafarov; KIBERNETIKA V	
KHIMICHESKOY TEKHNOLOGII (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE: SERIYA KHIMIYA, No 1, Jan 84)	29
TERRETAIN DERITE MILITIN, NO 1, DBI 04/	23

	Nitrate Treatment of Apatite Concentrate	
	(I. F. Mulyarchuk, V. I. Gumen, et al.; KHIMICHESKAYA TEKHNOLOGIYA, No 2, Mar-Apr 84)	37
	Obtaining Soda and Potash From Sylvinite Ores of Karlyuk Deposit	
	(S.A. Krasheninnikov, T. S. Gref, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	37
	Analysis of Level of Concentration and Its Effect on	
	Technical-Economic Indicators of Work at Nitrogen Industry Enterprises	
	(A.I. Trishechkin; KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	38
	No 2, Feb 04/	30
	Interphase Catalysis by Quaternary Ammonium Salts in Curtius Reaction	
	(V. A. Zlobin, V. T. Kosolapov, et al.; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	38
	Industrial Testing of Continuous Benzene Extraction of Trioxane	
	(M.A. Fandeyev, R.Z. Pavlíkov, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 3, Mar 84)	39
COAL	L GASIFICATION	
	Transformation of Iron-Containing Components of Brown Coals	
	During Spontaneous Combustion (Yu. B. Voytkovskiy, I. V. Aleksandrov, et al.;	
	KHIMIYA TVERDOGO TOPLIVA, No 2, Mar-Apr 84)	40
	Determining Ash Content of Coal by Intensity of Gamma Radiation	
	(Yu. N. Pak, L.P. Starchik; KHIMIYA TVERDOGO TOPLIVA,	
	No 2, Mar-Apr 84)	40
	Composition of Products of Nitric Acid Oxidation of Oil Shales	
	(R. E. Veski, Ye. B. Bondar'; KHIMIYA TVERDOGO TOPLIVA, No 2. Mar-Apr 84)	41
	Designation of Mater Book Book Versile Ashirah Cooks	
	Production of Motor Fuel From Kansk-Achinsk Coals (A.A. Krichko, M.K. Yulin, et al.; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 3, Mar 84)	42
	Standardizing and Improving Unloading Equipment at Dry Coke	
	Slaking Installations	
	(A. A. Azimov, A. A. Brantov, et al.; KOKS I KHIMIYA, No 3. Mar 84)	42

	Use of Polymers of Benzene Fraction for Preparing Coal-Tar Lubricants	
	(S. I. Shabovta, V. D. Muzychuk, et al.; KOKS I	
	KHIMIYA, No 3, Mar 84)	43
COMB	USTION	
	Interaction of Chains During Induction Period of Branched Chain	
	Breakdown of Nitrogen Trichloride	
	(Ye. A. Markevich, V. V. Azatyan; KHIMICHESKAYA	
	FIZIKA, No 3, Mar 84)	44
	Comparison Criteria for Experimental and Calculated	
	Retardation of Ignition	
	(A. A. Borisov, V. V. Lisyanskiy, et al.; KHIMICHESKAYA	
	FIZIKA, No 3, Mar 84)	45
	Gas Emission From Impurities During Free Gas Combustion of	
	Transition Metals Mixed with Boron	
	(A. K. Filonenko, V. I. Vershinnikov; KHIMICHESKAYA	
	FIZIKA, No 3, Mar 84)	45
	Calculation of Flows With Detonation Waves	
	(B. Ye. Gel'fand, S. A. Gubin, et al.; KHIMICHESKAYA	
	FIZIKA, No 3, Mar 84)	46
	Structure of Chain-Heat Limits of Self-Ignition	
	(V. I. Babushok, T. V. Krakhtinova, et al.;	
	KINETIKA I KATALIZ, No 1, Jan-Feb 84)	46
	Synthesis of Triazole and Tetrazole Esters	
	(A. V. Maksikova, G.P. Sukhanov, et al.; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
	KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	47
ELECT	TROCHEMISTRY	
	Problem of Mechanism of Electroreduction of Oxygen on Steel	
	Electrode in Neutral Media	
	(V. A. Kuznetsov, I. P. Nelayev; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 2, Feb 84)	48
	Electric Conductivity of Hydrocarbon Solutions of Barium	
	Dielkyldithiophosphate	
	(A.T. Pilipenko, T.A. Zharinova, et al.; DOKLADY	
	AKADEMII NAUK UKRAINSKOY SSR, SERIYA B:	
	GEOLOGICHESKIYE, KHIMICHESKIYE I BIOLOGICHESKIYE	40

FERTILIZERS

	Equipment Delivery Failures Plague Fertilizer Industry Builders	
	(P. Goncharov, I. Afanasiad, et al.;	
	STROITEL'NAYA GAZETA, 4 May 84)	50
INORG	ANIC COMPOUNDS	
	Superionic Conductors. Anomalously High Ionic Conductivity	
	In Inorganic Fluorides (I. V. Murin; IZVESTIYA SIBIRSKOGO OTDELENIYA AKADEMII	
	NAUK SSSR: SERIYA KHIMICHESKIKH NAUK, No 2, Jan-Feb 84).	52
	Physical Charles Caudy of Caladyn and Cananadyn Culfate	
	Physical-Chemical Study of Calcium and Strontium Sulfate Cocrystallization Processes	
	(N.N. Bushuyev, A.G. Kostyuk, et al.; ZHURNAL	
	PRIKLADNOY KHIMII, No 2, Feb 84)	53
	Photostimulated Thermoluminescence of Radiation-Colored Quartz	
	(L.S. Korniyenko, A.O. Rybaltovskiy, et al.;	
	FIZIKA I KHIMIYA STEKLA, No 1, Jan-Feb 84)	53
	Thermal Surface Changes of Reduced Lead Glass	
	(L.A. Gravel', N.B. Leonov, et al.; FIZIKA I	
	KHIMIYA STEKLA, No 1, Jan-Feb 84)	54
	Effects of Sodium Cyanide and Cyanate Admixtures on	
	Electrolytic Products of Sodium Chloride Solutions	
	(Ye. V. Mulin, V.P. Tarasenkova; KHIMICHESKAYA	E /.
	PROMY SHLENNOST', No 3, Mar 84)	54
PETRO	LEUM PROCESSING TECHNOLOGY	
	Methanol Produced From Ethylene Waste Gases	
	(V. Mikhaylichenko; SOTSIALISTICHESKAYA	
	INDUSTRIYA, 8 Apr 84)	56
	High Quality Gasoline Produced Without Additives	
	(SOTSIALISTICHESKAYA INDUSTRIYA, 8 Apr 84)	57
	Tyumen Association Produces 1 Trillion Cubic Meters of Gas	
	(M. Umanskiy; SOTSIALISTICHESKAYA INDUSTRIYA,	
	28 Apr 84)	58
	New Methanol and Formalin Plant at Tomsk	
	(Yu. Shcherbinin, Yu. Kotlyarov; TRUD, 7 Apr 84)	60

Test Results for Experimental General Use Compressor with	
12 m ³ /min Capacity (M. A. Serdakov, I.S. Prostorov, et al.;	
KHIMICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE,	
No 3, Mar 84)	62
Developing Uniform Centrifugal Compressor Stages	
(K. P. Seleznev, Yu. B. Galerkin, et al.;	
KHIMI CHESKOYE I NEFTYANOYE MASHINSTROYENIYE,	
No 3, Mar 84)	62
Improving Circulating Part of Axial Compressors for Gas	
Turbine Installations	
(A. P. Tarabrin, L.N. Buynovskaya, et al.;	
KHIMICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE,	
No 3, Mar 84)	63
Improving Natural Gas Compression Rings	
(G. F. Velikanov, K. B. Sarantsev, et al.;	
KHIMICHESKOYE I NEFTYANOYE MASHINOSTROYENIYE,	
No 3, Mar 84)	63
DI-195 Ram Screw Engine	
(V. Ya. Gerdel'; KHIMICHESKOYE I NEFTYANOYE	
MASHINOSTROYENIYE, No 3, Mar 84)	64
Effectiveness of Obtaining Alkenes from Vacuum Gas Oil	
(V. M. Dmitriyev, S.A. Gorislavets; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 3, Mar 84)	64
Effect of Chemical Composition of Vacuum Gas Oil Fraction	
or Pyrolysis Results	
(I.I. Vasil'yeva, Yu. M. Zhorov, et al.; KHIMIYA	
I TEKHNOLOGIYA TOPLIV I MASEL, No 3, Mar 84)	65
Effectiveness of Antiwear Additives in Oils Containing	
IKhP-234	
(A.B. Kuliyev, G.I. Imanova, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 3, Mar 84)	65
Effect of Mixed Ester Based Additives on Tribo-Chemical	
Stability of Lubricants	
(Ye.M. Nikonorov, L.V. Demina, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASTL, No 3, Mar 84)	66
Classification of Fuels and Lubricants for Aviation Technology	
(B.G. Bedrik; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL,	
No 3, Mar 84)	66

Comparative Effectiveness of Various Processes for More	
Exhaustive Petroleum Processing	
(V. A. Bugrov, L.F. Khraputskaya; KHIMICHESKAYA TEKHNOLOGIYA, No 2, Mar-Apr 84)	67
Effect of Additives and Catalyst Structures of Their	
Carbonization in Vapor Conversion of Liquid Hydrocarbons	
(P. Nasirov, E. S. Khamdamova, et al.; KHIMICHESKAYA	
TEKHNOLOGIYA, No 2, Mar-Apr 84)	67
TERRIOLOGITA, NO 2, FMI - APT 04/	0,
Methane Chlorination Over Carbon Catalysts	
(B. I. Shatalov; KHIMICHESKAYA TEKHNOLOGIYA, No 2,	
Mar-Apr 84)	68
Extraction of Methane and Argon with Liquid Ammonia From	
Synthesis Gas Obtained in Production of Ammonia	
(A. I. Pyatnichko, V.L. Saprykin; KHIMICHESKAYA	
TEKHNOLOGIYA, No 2, Mar-Apr 84)	68
The state of the s	00
PHARMACOLOGY AND TOXICOLOGY	
Synthesis and Study of Radioprotective Properties of Sulfur-	
Containing Purine Azaanologs	
(G. N. Krutovskikh, G. F. Gornayeva, et al.;	
KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 3, Mar 84)	69
Extraction of Antibiotics by Mixed Solvents	
(N. L. Yegutkin, V. V. Maydanov, et al.,; KHIMIKO-	
FARMATSEVTICHESKIY ZHURNAL, No 3, Mar 84)	69
Synthesis of Metacid	
(P. A. Gembitskiy, L.F. Boksha, et al.;	
KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	70
Antitoxic Effect of Laser Radiation On CCl_4-Damaged	
Hepatocytes	
(S. I. Kharlampovich, A. K. Polonskiy, et al.;	
FARMAKOLOGIYA I TOKSIKOLOGIYA, No 2, Mar-Apr 84)	70
Age Specifics of Pharmacokinetics of Potassium Glutamate	
(V. I. Zapadnyuk, L.P. Kuprash, et al.;	
FARMAKOLOGIYA I TOKSIKOLOGIYA, No 2, Mar-Apr 84)	71
POLYMERS AND POLYMERIZATION	
COLLEGE IND COLLEGE ION	
Leading, Lagging Chemical Enterprises Singled Out	
(EKONOMI CHESKAYA GAZETA, No 19, May 84)	72

Production of Polymers From Solids by Shear Deformation Technique	
(I. Novodvorskiy; IZVESTIYA, 30 Mar 84)	74
Light Sensitivity of Certain Hydrophobic Copolymer Particles Dispersed in Polyvinyl Alcohol	
(G.N. Savestenko, I.N. Yermolenko, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 2, Feb 84)	76
Effect of Polymerization Conditions on Mechanical and Molecular Properties of PMMA	
(A. F. Samarin, N. N. Safonova, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	76
Synthesis and Antistatic Properties of Quaternary Ammonium Salts Based on Bisphenols	
(Yu. I. Vasilenok, V. N. Lagunova, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	77
Reticulated Copolymers of Divinyl Ester of Hydroquinone and	
Acrylates	
(L. Ya. Tsarik, O. G. Vokina, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	77
Reaction of Polyimide Film with Ammonium Nitrate Melt	
(I. I. Strizhevskiy, Ye. B. Moshkovich, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	78
Effect of Climatic Factors on Properties of Glass-Filled	
Compositions	
(L. L. Krupenina, L. L. Shcheglov, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	78
Effect of Reactor Radiation on Electrical Properties of	
Liquid Dielectric PFMS-6 in Static System	
(Ye. I. Knizhnik, K. B. Ryazanov, et al.;	
PLASTICHESKIYE MASSY, No 3, Mar 84)	79
Coatings of Polyvinylfluoride Organodispersions	
(N. A. Bugorkova, L. G. Kochkina, et al.;	
PLASTICHESKIYE MASSY. No 3, Mar 84)	79
Rheclogical Properties of Thermodynamically Compatible	
Po. yamide Mixtures Obtained by Different Methods	
(N. P. Suprun, O. V. Romankevich;	
KHIMICHESKAYA TEKHNOLOGIYA, No 2, Mar-Apr 84)	80
Local Polymerization of Acrylamide in Gelatin Matrix	
When Exposed to Helium-Neon Laser	
(V. I. Lutoshkin, S. V. Volkov, et al.;	
HEDATICKTY PHIMICUECTTY THIPNAL No. 3 Mar RA	0.1

82 82 83
82
82
82
82
83
83
83
8.
83
84
84
84
85
86

	Radiation Treatment of Heavy Duty Pipes with Electron Beam (S. I. Omel'chenko, R. Ya. Strakovskaya, et al.; KHIMICHESKAYA TEKHNOLOGIYA, No 2, Mar-Apr 84)	86
	Extraction of Uranium with Hexanoic Acid in Presence of	
	Organic Bases	
	(V. V. Sukhan, V. F. Gorlach, et al.; UKRAINSKIY	
	KHIMICHESKIY ZHURNAL, No 3, Mar 84)	87
	Effects of Argon Ions on Lead Glass Emission	
	(N.B. Leonov, A.M. Tyutikov, et al.; FIZIKA I	
	KHIMIYA STEKLA, No 1, Jan-Feb 84)	88
RUBBER	AND ELASTOMERS	
	Synthesis and Determination of Areas of Application of	
	Aromatic Linear Ketals	
	(I. P. Lychkin, T. V. Litvinova, et al.;	
	IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA	
	I KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	89
	Study of Properties of Ethylene-Propylene Raw Rubbers	
	Modified by Acrylonitrile	
	(R. Sh. Frenkel', L. N. Alekseyeva, et al.;	
	IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
	KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	89
	Synthesis and Properties of Graft Polymers of Polypropropylene with 4-Vinylpyridine	
	(A. M. Nabiyeva, U. N. Musayev, et al.; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
	KHIMICHESKAYA TEKHNOLOGIYA, No 2, Feb 84)	90
WATER ?	TREATMENT	
	Oxidation of Surfactants in Reducing Coloration of Sewage	
	Water Using Hydrogen Peroxide in Presence of Catalyst	
	(Z. L. Fayngol'd, Ye. V. Zav'yalova, et al.;	
	KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 3, Mar 84)	91
	Industrial Testing of Precipitate Thickening at Station	
	for Clarification of Slightly Clouded Water	
	(E. A. Proshin, V. D. Rakhamimov, et al;	
	VODOSNABZHENIYE I SANITARNAYA TEKHNIKA, No 3,	-
	Mar 84)	92
	New Procedure for Biological Purification of Sewage	
	(Yu. I. Turovskiy, G. G. Sorokin;	
	VODOSNABZHENIYE I SANITARNAYA TEKHNIKA, No 3,	

	Concentration of Industrial waste waters by Electrodialysis	
	(T. A. Krasnova, K.M. Saldadze, et al;	
	KHIMICHESKAYA PROMYSHLENNOST', No 2, Feb 84)	93
	,,	
	Treatment of Industrial Effluents from Cheleken Chemical	
	Plant	
	(M.A. Shenker, M.S. Goberman; KHIMICHESKAYA	
	PROMYSHLENNOST', No 2, Feb 84)	93
	Effect of Geometric Characteristics of Hollow Fiber on its	
	Productivity and Selectivity in Equipment for Osmosis Process	
	(G.D. Sukhov, V.A. Bakunov, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 2, Feb 84)	94
	System Analysis of Waters From Coal-Tar Chemistry Production	
	(S. G. Dyatel, T. K. Teykhrib; KOKS I KHIMIYA,	04
	No 3, Mar 84)	94
	Removal of Vinyl Chloride and Dichloroethane from Waste	
	Waters by Activated Charcoal Adsorption	
	(R.P. Kochetkova, Z.A. Kreych, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 3, Mar 84)	95
	Ionizing Radiation Treatment of Alkaline Sulfur Effluent	
	(Ye. P. Petryayev, O.A. Gerasimovich, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 3, Mar 84)	95
MIS	CELLANEOUS	
	Features of Silicon Dissolution Under Etching Conditions	
	of Structures With p-n Transitions	
	(S.O. Izidinov, A.I. Petrin, et al.; ZHURNAL	
	PRIKLADNOY KHIMII, No 2, Feb 84)	97
	PRIKLADNOI KRIMII, NO 2, FEB 64)	91
	Influence of Gelatinous Electrolyte on Electrode	
	Characteristics in Lead Batteries	
	(N.K. Grigalyuk, T.P. Chizhik, et al.;	
	ZHURNAL PRIKLADNOY KHIMII, No 2, Feb 84)	97
	South of Con Deports CO. Language Winterson with High	
	Study of Gas Dynamic CO ₂ -Lasers on Mixtures with High Content of Hydrogen	
	(V. M. Doroshenko, N. N. Kudryavtsev, et al.;	
	KHIMICHESKAYA FIZIKA, No 3, Mar 84)	98
	KHIRICHESKAIA FIZIKA, NO 3, Mar 04)	90
	Light Sensitive Enzymic Material	
	(N.F. Kazanskaya, R. A. Mkhitarov, et al;	
	VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1,	
	Jan-Feb 84)	98

Chemical Grafting of Optically Active Aminoacids on Surface of Silica	
(V. A. Malinovskiy, S. M. Staroverov, et al.;	
VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1,	
Jan-Feb 84)	99
Insertion of Metal Halides into Graphite Under High Pressure	
(V. A. Mukhanov, V. V. Avdeyev, et al.;	
VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 1,	
Jan-Feb 84)	100

.

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

	Study of Adsorption of Aqueous Solutions of Organic Substances Under Conditions of Forced Polarization, Part 1: Adsorption and Desorption	
	n-Hexanol, Cyclohexanol and Nitrobenzene on Graphite	
	(V.V. Khabalov, A.A. Pershko, et al.; IZVESTIYA	
	AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 2,	
	Feb 84)	1
	Adsorption Thermodynamics of Ethyl Alcohol - Ethyl Acetate	
	and Ethyl Alcohol - Benzene Solutions on Silica-Gel KSK-2	
	(S.A. Busev, O.G. Larionov; ZHURNAL FIZICHESKOY	
	KHIMII, No 3, Mar 84)	1
	Covalent Attachment of Biologically Active Substances to	
	Polymers. XI. Immobilization of Aminoacid Hydrazides	
	Through Hydrazide Group	
	(V. Kh. Mitina, B. A. Klyashchitskiy; ZHURNAL	
	OBSHCHEY KHIMII, No 4, Apr 84)	2
ALKAI	LOIDS	
	Ion-Exchange Method of Obtaining Total Alkaloids of Vinca	
	Minor L.	
	(Yu. I. Lapkina, M. H. Abramova, et al.; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	3
BIOCE	HEMISTRY	
	Bioelectrocatalysis, Mechanism of Oxidation of Molecular	
	Hydrogen on Electrode With Immobilized Hydrogenase	
	(A.I. Yaropolov, A.A. Karyakin, et al.; DOKLADY	
		4

CATALYSIS

Effect of Method of Preparation of Activity of Cobalt-Catalysts	
in Synthesis of Hydrocarbons From CO and H ₂	
(A.L. Lapidus, A.Yu. Krylova, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 2,	
Feb 84)	5
Study of Reduction of Vanadium Silicate Catalysts by Monohydrogen	
(Ye.G. Klimchuk, B.N. Shelimov, et al.; IZVESTIYA	
AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 2,	
Feb 84)	5
Dehydrogenation of n-Decane Over Technetium Carried Catalysts	
(G.V. Isagulyants, O.D. Sterligov, et al.;	
IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
No 2, Feb 84)	6
Reaction of Alcohols With Epichlorohydrin in Presence of	
Zeolite-Containing Alumina-Silica Catalyst	
(P.S. Belov, N.C. Baray, et al.; IZVESTIYA	
VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 3, Mar 84)	6
Conjoint Oxidation of CO and SO ₂ Over Oxide Catalysts	
(V.A. Taranushich, V.B. Il'in; IZVESTIYA VYSSHIKH	
UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 3, Mar 84)	7
Kinetics of Ethylene Polymerization Over Catalyst System	
TiCl4-(C2Hs)2 AlBr.Phenetol	
(V.F. Mardykin, T.K. Morozova; IZVESTIYA	
VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 3, Mar 84)	7
Hydrogenation of Crotonaldehyde Over Rhodium Catalyst	
(D.V. Sokol'skiy, N.V. Anisimova, et al.; IZVESTIYA	
AKADEMII NAUK KAZAKHSKOY SSR, No 2, Mar-Apr 84)	8
Relationship Between Catalytic Activity in Conversion of	
Methanol With Hydrogen Forms of Erionite, Chabazite and	
Clinoptilolite and Their Acidity	
(G.P. Tsintskaladze, A.R. Nefedova, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 3, Mar 84)	8
Effect of Ruthenium Concentration in Ru/Al ₂ O ₃ Catalysts on	
Adsorption and Decomposition of NO	
(K. Dosumov, L.A. Sokolova, et al.; ZHURNAL FIZICHESKOV KHIMII. No. 3 Mar 84)	
ETZICHESKOV KHIMII NO T Mar MAI	G G

Study of Zeolite-Containing Alumina-Silica Catalysts Promoted With Cerium (III) Ions in Catalytic Cracking	
(G.A. Gamidzade, A.A. Mamedov, et al.; AZERBAYDZHANSKIY	
KHIMICHESKIY ZHURNAL, No 4, Oct-Dec 83)	9
Disproportionation of Isobutylene With Propylene Over Tungsten	
Catalysts	
(B.A. Dadashev, Z.A. Gorshkova, et al.; AZERBAYDZHANSKIY	
KHIMICHESKIY ZHURNAL, No 4, Oct-Dec 83)	10
Photocatalytic Formation of Hydrogen in Alcoholic Solutions of Titanium Tetrachloride	
(A.I. Kryukov, A.V. Korzhak, et al.; TEORETICHESKAYA	
I EKSPERIMENTAL'NAYA KHIMIYA, No 2, Mar-Apr 84)	10
Study of Interaction of Oxides of Carbon and Oxygen With	
Surface of Chromia-Cuprous Oxide Catalyst	
(R.P. Gura, V.A. Kuznetsov, et al.; TEORETICHESKAYA	
I EKSPERIMENTAL'NAYA KHIMIYA, No 2, Mar-Apr 84)	11
Effect of Degree of Reduction of Catalyst on its Properties	
in Methacrolein Oxidation Reactions	
(V.M. Zhiznevskiy, B.T. Grimalyuk, et al.;	
UKRAINSKIY KHIMICHESKIY ZHURNAL, No 4, Apr 84)	11
Spectroscopic Study of State of Palladium in Surface Palladium- Molybdenum Catalysts	
(L. Ya. Mostovaya, N.S. Kozlov, et al.; IZVESTIYA	
AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK,	
No 2, Mar-Apr 84)	12
Mechanism of Formation of Porous Structure of Fluorinated	
Aluminosilicate Catalysts	
(M. F. Sinilo; IZVESTIYA AKADEMII NAUK BSSR:	
SERIYA KHIMICHESKIKH NAUK, No 2, Mar-Apr 84)	12
Adsorptive and Catalytic Properties of Intermetallic Compounds	
LaNi3, LaNi5-xCu, and Their Hydrides	
(I.R. Konenko, Ye. V. Starodubtseva, et al.;	
IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
No 4, Apr 84)	13
LnNi5-xCux-Hydrides Modified by R,R-(+)-Tartaric Acid as	
Catalysts of Hydrogenation of Ethylacetoacetate	
(Ye. V. Starodubtseva, I. R. Konenko, et al.;	
IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
No 4. Apr 84)	14

CHEMICAL INDUSTRY

Brief	
Leningrad Chemical Plant Renovated	15
COMBUSTION	
Pyrolysis and Fire-Extinguishing Action of Phosphates in Polymethylmethacrylate Compositions (Ye. I. Konstantinova, A.Ya. Lazaris, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	16
Heats of Combustion and Formation of Cyanuric Chloride	
(M.V. Lyubarskiy, R.I. Smolyanets, et al.; ZHURNAL FIZICHESKOY KHIMII, No 3, Mar 84)	16
Decreasing Explosion Danger of Dust-Air Dye Mixtures in Production of Commercial Forms	
(I. B. Perepelkin, V. M. Golubev, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 4, Apr 84)	17
ELECTROCHEMI STRY	
Electron Exchange Reactions on Titanium Silicate Glasses With Low Level of Conductivity	
(M.M. Shul'ts, A.V. Andreyenko, et al.; DOKLADY AKADEMII NAUK SSSR, No 6, Feb 84)	18
Role of Active Particles of H and HO2 in Chemiionization During Hydrocarbon Combustion	
(V.I. Botova, B.S. Fialkov; ZHURNAL FIZICHESKOY KHIMII, No 3, Mar 84)	18
Effect of Temperature and Electrolyte Concentration on	
Cathodic Incorporation of Lithium Into Aluminum	
(B. N. Kabanov, L. A. Alekseyeva, et al.;	
ELEKTROKHIMIYA, No 4, Apr 84)	19
FERTILIZERS	
Contribution of Industry for Soil Fertility (A. Petrishchev: EKONOMIKA SEL'SKOGO KHOZYAYSTVA.	
No 4, Apr 84)	20
Briefs	
Savings in Fertilizer Production	28
New Turkmen Fertilizer Complex To Go Onstream	28
New Liquid Fertilizers	29

FREE RADICALS

Mechanism of Free Radical Initiation in Spontaneous Hydrogen Peroxide Decomposition Process	
(L.S. Ernestova, Yu. I. Skurlatov; ZHURNAL	
FIZICHESKOY KHIMII, No 3, Mar 84)	30
GANIC COMPOUNDS	
New Compounds Formed in the System Na ₂ O-CaO-P ₂ O ₅ -SiO ₂ -H ₂ O	
(M.N. Kazov; IZVESTIYA AKADEMII NAUK KAZAKHSKOY SSR, No 2, Mar-Apr 84)	31
Synthesis of Titanium and Zirconium Nitrohydrides in Combustion	
Mode	
(M. D. Nersesyan; ZHURNAL NEORGANICHESKOY KHIMII,	
No 4, Apr 84)	31
Interaction of Hydrogen With 8-Phase Alloys in Titanium- Vanadium-Aluminum System	
NEORGANICHESKOY KHIMII, No 4, Apr 84)	32
Interaction of LaNi _{5-x} (T^1 , T^2) _x Compounds With Hydrogen, Where T^1 , T^2 = Al. Cr. Fe. Cu	
NEORGANICHESKOY KHIMII, No 4, Apr 84)	33
Products of Interaction of Aluminum With High Temperature	
(I. P. Ubele, Ya. P. Grabis; IZVESTIYA AKADEMII NAUK LATVIYSKOY SSR: SERIYA KHIMICHESKAYA,	
No 2, Mar-Apr 84)	33
Oxidation of Finely Dispersed AlN-Mo Powders	
No 2, Mar-Apr 84)	34
Electrophysical Properties of Iron-Carbon Fiber Materials	
No 2, Mar-Apr 84)	34
Study of Powerton of Timentum Containing Corbon Material	
NAME No 2 Mar-Apr 84)	35
	Peroxide Decomposition Process (L.S. Ernestova, Yu. I. Skurlatov; ZHURNAL FIZICHESKOY KHIMII, No 3, Mar 84)

ION EXCHANGE PHENOMENA

	Amplitude Method for Measuring Electrical Resistance of Ion Exchange Membranes	
	(P. I. Kulintsov, O. V. Bobreshova, et al.;	
	ELEKTROKHIMIYA, No 4, Apr 84)	36
NITR	OGEN COMPOUNDS	
	Copper and Rho lium Complex Catalyzed Interaction of Ethyl-	
	diazoacetate With Alkylamines	
	(U. M. Dzhemilev, R. N. Fakhretdinov, et al.;	
	IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
	No 3, Mar 84)	37
	Synthesis of Methyl-N-Arylcarbamates by Carboxylation of Azoxy-,	
	Azo- and Nitrosocompounds	
	(V. I. Manov-yuvenskiy, K. B. Petrovskiy, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
	No 3, Mar 84)	38
DRGA	NOMETALLIC COMPOUNDS	
	Liquid-Phase Low-Temperature Polycondensation of Magnesium and	
	Calcium Phosphates	
	(O.S. Sirotkin, I.A. Zhenzhurist, et al.;	
	ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	39
	Electrochemical Reactions of S-, Se-, and Te-Containing	
	Organic Compounds. X. Electrochemical Reduction of	
	p-Tolyltellurophenylacetylene in Media With Variable	
	Protogenic Activity	
	(V. Z. Latypova, G. A. Yevtyugin, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 4, Apr 84)	39
	Electrochemical Reactions of S-, Se-, and Te-Containing	
	Organic Compounds, IX. Arylthio(Seleno)Arylacetylenes	
	Prom Results of Electrochemical Oxidation, Spectrophotometry	
	of Complexes With Charge Transfer and Pes	
	(V. Z. Latypova, O. G. Yakovleva, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 4, Apr 84)	40
	Synthesis and NMR 19F-{1H} Spectra of 4-Fluorophenylacetylene	
	and its Organometallic Derivatives	
	(A. S. Peregudov, V. F. Ivanov, et al.; IZVESTIYA AKADEMII	
	NAUK SSSR: SERIYA KHIMICHESKAYA, No 4, Apr 84)	41
	Reaction of Hexamethyldistannane With Allylacetates and	
	Allylhalides, Catalyzed by Palladium Complexes	
	(N. A. Bunagin, A. N. Kasatkin, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 3,	
	Mar 84)	41

	Interaction of Alkyl Derivatives of Titanium and Aluminum With Carbocations	
	(P. Ye. Matkovskiy, L. I. Chernaya, et al.;	
	IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 3, Mar 84)	42
RGA	NOPHOSPHORUS COMPOUNDS	
1001		
	Polarity of C=P Bond in Compounds of Monocoordinated Phosphorus (I.I. Patsanovskiy, E.A. Ishmayeva, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
	No 2, Feb 84)	43
	Stability of 2-Oxyalkyl Esters of Thiophosphoric Acids Having One Steric Inhibitor at Phosphorus Atom	
	(O.N. Nuretdinova; IZVESTIYA AKADEMII NAUK SSSR:	
	SERIYA KHIMICHESKAYA, No 2, Feb 84)	43
	Synthesis of S-beta-Aryl(Benzyl)Mercaptoethyl Esters of Phosphorus Thioacids	
	(L.G. Grineva, V.M. Kuzamyshev, et al.; IZVESTIYA	
	AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 2,	
	Feb 84)	44
	Synthesis and Study of Properties of Bis(Organoxycyclo- triphosphazenyl) Oxides	
	(S. G. Fedorov, G. S. Gol'din, et al.; ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	44
	Synthesis and Study of 2-Hydroxypropylene-1,3-Diamino-N,N'-	
	Diacetic-N, N'-Dimethylenephosphonic Acid (A. V. Barsukov, G. F. Yaroshenko, et al.;	
	ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	45
	Specifics of Reaction of Diepoxides Containing Phosphoryl Groups With Amines	
	(E. F. Gubanov, G. Ye. Vershinina, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 4, Apr 84)	45
	Synthesis and Study of Acylphosphonium Derivatives of Indole	
	(P. I. Yagodinets, I. N. Chernyuk, et al.; ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	46
	Enurnal Obserter Knimit, no 4, apr 64)	40
	Interaction of Aminotriazines With Carbonyl Compounds and Dialkylphosphites	
	(A. F. Prokof'yeva, Zh, Z. Sapozhnikova, et al.;	
	ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	47
	Electrochemical Fluorination of Trialkylphosphinoxides	
	(L. M. Yagupol'skiy, V. Ya. Semeniy, et al.;	
	ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	47

	N-Nitroaryisubstituted I nosphazides and I nosphazocompounds	
	II. Basicity of Phosphazides and Phosphazocompounds	
	(V. P. Prokopenko, N. V. Proklina, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 4, Apr 84)	48
	Polarity and Conformation of Halogen Phosphines	
	(1. I. Patsanovskiy, Ye. N. Strelkova, et al.;	
	ZHURNAL OBSHCHEY KHIMII, No 4, Apr 84)	48
	blother volletter military to 4, apr. 04/11/11/11/11/11	40
	[2+2]-Cycloattachment of Hexafluoroacetone to P-	
	Chlorophosphoniumalkylides	
	(O. I. Kolodyazhnyy; ZHURNAL OBSHCHEY KHIMII, No 4,	
	Apr 84)	49
	Production of Benzylthiophosphonic Acid Dibromide from Phosphorus	
	Tribromide and Tribenzyltrithiophosphite	
	(P. A. Khokhlov, L. S. Berseneva, et al.; ZHURNAL	
		4.0
	OBSHCHEY KHIMII, No 4, Apr 84)	49
	Synthesis of Acyl-Substituted S-Butine Esters of Phosphorus	
	Thioacids	
	(N. N. Godovíkov, L. A. Vikhreva, et al.; IZVESTIYA	
	AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 4,	
	Apr 84)	50
PESTICI	DES	
	Synthesis and Study of Insecticidal Activity of Mixed Esters	
	of Alkyl- and Halogenophenoxyethanols	
	(D.N. Khydyrov, Z.T. Efendiyeva, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 4.	
	Oct-Dec 83)	51
PETROLE	OUM PROCESSING TECHNOLOGY	
	Effect of Additions of Acetylene on Hydrocarbon Synthesis From	
	CO and H2 in Presence of Cobalt-Catalysts	
	(Khoang Chong Iyem, T.V. Khlebnikova, et al.;	
	IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA,	
	No 2, Feb 84)	52
	Obtaining Motor Fuel From Heavy Crudes and Malthas by Thermal	
	Catalytic Cracking	
	(D.M. Soskind, Ye.D. Radchenko, et al.; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	52
	Obtaining High Index Thermostable Oils	
	(R.Sh. Kuliyev, B.A. Sadykhova, et al.; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	53

Using Ethylene-Vinyl Acetate Copolymers to Intensify Oil Dewaxing Process	
(V.I. Ivanov, R.A. Terteryan, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	53
Polymerization of Cg-C14 alpha-Olefins in a Continuous Reactor	
(O.N. Tsvetkov, R.I. Toporishcheva; KHIMIYA I	
TEKHNOLOGIYA TOPLIV 1 MASEL, No 2, Feb 84)	54
Filterability of T-6 Jet Fuel at Low Temperatures	
(A.I. Belousov, Ye.M. Bushuyeva, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	54
Universal Corrosion Inhibitor for Transmission Oils	
(O.S. Stepuro, P.P. Zaskal'ko, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	55
Features of Stabilizing Activity of Urea Derivatives in Jet Fuels	
(Ye. V. Glebova, T.P. Vishnyakova, et al.; KHIMIYA	
I TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	55
Fuel for Testing Aviation Gas Turbine Engines	
(A.F. Gorenkov, G.B. Skovorodin, et al.; KHIMIYA I	
TEMENOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	56
Viscosity of White Compressor Oils as Function of Pressure	
(Ye.N. Harcheva, G.I. Fuks, et al.; KHIMIYA I	-
TEKHNOLOGIYA TOPLIV I MASEL, No 2, Feb 84)	56
Thermal-Oxidative Stability of Ammeline Greases	
(M.B. Chepurova, R.I. Kobzova, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I HASEL, No 2, Feb 84)	57
Flash Point Determination of Petroleum Fuel Blends	
(P.D. Semenov; KHIHIYA I TEKHNOLOGIYA TOPLIV I	
MASEL, No 2, Feb 84)	57
Leaching of Uranium From Aqueous Solutions by Electrodialysis	
Through Liquid Hembranes Based on Macrocyclic Compounds	
(V.N. Golubev, T.V. Gordeladze, et al.; DOKLADY	
AKADEMII NAUK SSSR, No 6, Feb 84)	58
Effects of Various Factors on Ethylene Hydrogenation by Hydrogen Spillover Method	
(Ye.A. Poladyan, P.S. Gukasyan, et al.; DOKIADY	
AKADEMII NAUK SSSR, No 6, Feb 84)	58
Purified Concentrate of Low-Molecular Weight Acids as Feed	
Preservative	
(N.A. Filippov, L. I. Dudkova, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 4, Apr 84)	59

(V. 1. Ivanov, F. V. C	or Additive VES-408 for Fuel Oil Oktyabr'skiy, et al.; KHIMIYA 1 MASEL, No 4, Apr 84)	60
and Anti-Friction Additives f		
	I MASEL, No 4, Apr 84)	60
(O. S. Stepuro, I. Yu.	n Inhibitors for Lubricating Oils Rebrov, et al.; KHIMIYA I MASEL, No 4, Apr 84)	61
Corrosion Inhibitor for Preserv	vative Oils	
·	Mayko, et al.; KHIMIYA I MASEL, No 4, Apr 84)	61
Influence of Acid Type Corrosio of Motor Oils	on Inhibitors on Usage Properties	
	Masel, No 4, Apr 84)	62
(N.G. Kozhayeva, Ye. M	From Production of Abes Additive A. Karyagina, et al.; KHIMIYA I MASEL, No 4, Apr 84)	62
(T. A. Zaymovskaya, G.	as Additives to Lubricating Oils N. Kuz'mina, et al.; KHIMIYA I MASEL, No 4, Apr 84)	63
of Sapropel Drilling Solution (I. I. Lishtvan, V. Sh IZVESTIYA AKADEMII NAU	ent on Technological Properties Shmavonyants, et al.; BSSR: SERIYA KHIMICHESKIKH	63
PHARMACOLOGY AND TOXICOLOGY		
Synthesis and Antimicrobial Pro Derivatives		
	K. Patratiy, et al.; KHIMIKO- RNAL, No 4, Apr 84)	65
1,2,3,4-Tetrahydroisoquinolin		
	Klimova, et al.; KHIMIKO- RNAL, No 4, Apr 84)	65
Synthesis and Pharmacologic Act 9-(3-Amino-2-Hydroxypropyl)Ca	rbazoles	
	RNAL, No 4, Apr 84)	66

	Synthesis and Anticonvulsant Activity of 2-Alkylsubstituted Thieno[2,3-d] Pyrimidine-4-Ones	
	(A. P. Mkrtchyan, S. G. Kazaryan, et al.; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL No 4, Apr 84)	67
	Synthesis and Biologic Activity of 3-0xo-8,9-Diphenyl-1,2,3,4,- Tetrahydro[1,5]Diazepino-[1,2,3,-ef]Indole	
	(A. N. Grinev, Ye. V. Lomanova, et al.; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	67
	Influence of Structure of Certain Chemical Compounds on Antialcoholic Activity	
	(M. M. Borisov, V.V. Avidon, et al.; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	68
	Physical-Chemical Properties and Acid Composition of Fatty Oil From Hippophy Fruit Pulp From Georgia	
	(I. A. Murav'yev, D. S. Lagazidze, et al.; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	68
	Study of Foam Damping Emulsion Stabilizers (A. V. Nosova, R. D. Soyfer, et al.; KHIMIKO-	
	FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	69
	Experimental Determination of Half-Life of a Radionuclide (V. A. Bazhenov, Ye. A. Tikhomirova, et al.; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 4, Apr 84)	69
POLY	MERS AND POLYMERIZATION	
	Radiation Grating Polymerization of 4-Vinylpyridine on PVC-Films (V. N. Kudryavtsev, A. Shapiro, et al.; PLASTICHESKIYE MASSY, No 4, Apr 84)	70
	Composition Polymer Materials Based on Epoxysiliconorganic	
	Oligomers (L. M. Khananashvili, Ts. N. Vardosanidze, et al.; PLASTICHESKIYE MASSY, No 4, Apr 84)	70
	Ion Exchange Heterogenic Membranes	
	(G. K. Saldadze, G. D. Bazikova, et al.; PLASTICHESKIYE MASSY, No 4, Apr 84)	71
	Vapor Permeability of Polymer Film Used in Packaging of Food Products	
	(M. S. Sheveleva, D. M. Safulin; PLASTICHESKIYE MASSY, No 4, Apr 84)	71
	Foam Materials Based on Polycarbodiimides	
	(A. K. Zhitinkina, T. V. Artamonova, et al.;	
	PLASTICHESKIYE MASSY, No 4, Apr 84)	72

Effect of Fiber Fillers on Foampolyacrylimide Properties (V. M. Mamontov, P. A. Okunev; PLASTICHESKIYE MASSY,	
No 4, Apr 84)	72
Electrical Conductivity Model of Carbon Black Filled Polypropylene	
(A.P. Losoto, V.M. Usichenko, et al.; DOKLADY	
AKADEMII NAUK SSSR, No 6, Feb 84)	73
Effect of Nature of Solvent on Copolymerization of Butadiene With Transpiperylene in Presence of Neodymium-Containing Catalysts	
(N.G. Marina, N.V. Duvakina, et al.; DOKLADY	
AKADEMII NAUK SSSR, No 6, Feb 84)	73
Physical-Mechanical Properties of Plasticized Polyimide	
Based on Tricyclo-(4,2,2,02.5)-DEC-7-ENE-3,4,9,10-	
Tetracarboxylic Acid Dichlorides and Diamino-Diphenyl Oxide	
(B.A. Zhubanov, O.A. Almabekov, et al.; 12VESTIYA	
AKADEMII NAUK KAZAKHSKOY SSR, No 2, Mar-Apr 84)	74
Determination of Rates of Radiation Initiated Polymerization of Adsorbed Monomers	
(M.A. Bruk, G.G. Isayeva, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 2, Feb 84)	74
Study of Solubility of Silicone Type Surfactants in Water and in Simple Oligoesters	
(Ye.G. Dubyaga, G.I. Titarova, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	75
Structure of High Molecular Weight Products of Nonequilibrium Polycondensation of Asymmetric Heterocyclic Diamines with Iso- and Terephthaloyl Chlorides	
(M.M. Gel'mont, Yu.I. Akulin, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	75
Inhibition of Thermal Decomposition of Polyvinyl Chloride With Dienophylic Compounds	
(S.V. Kolesov, V.V. Petrov, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 2, Feb 84)	76
Structure of Cyanacetylene Polymers	
(O.A. Yuzhakova, I.V. Isakov, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	76
Effect of Reaction System Functionality on Features of Process	
of Preparing Polyesterurethaneureas in N, N-Dimethyl Formanide	
(F.I. Simonovskiy, F.K. Samigullin, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	77

	lene Oxide as Phase Transition Catalyst in Reaction n Benzyl Chloride and Potassium Acetate	
betwee	(O.Ye. FILIPPOVA, I.N. TOPCHIYEVA, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 2, Feb 84)	77
Stabiliz	ers for High Density Polyethylene Based on Delta3-	
Cycloh	exanoyl-N, N-Diethyldithiocarbamate	
	(T.N. Dzhalilov, A.S. Dzhafarov, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 4,	
	Oct-Dec 83)	78
Study of	Properties of Stabilized Modified Polyethylene	
	(I.A. Mamedov, M.M. Gadzhiyev, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 4,	
	Oct-Dec 83)	78
Silicono	rganic Polymers, Filled with Natural and Modified	
Clinop	tilolite	
	(V.Ya. Kruglitskaya, O.G. Lomtadze, et al.;	
	UKRAINSKIY KHIMICHESKIY ZHURNAL, No 4, Apr 84)	79
RADIATION CHEMI	STRY	
Status a	nd Development Trends in Physical-Chemical Methods of	
Produc	ing Microspherical Nuclear Fuel Particles	
	(Ye. A. Filippov, A. I. Karelin, et al.;	
	RADIOKHIMIYA, No 2, Mar-Apr 84)	80
	agnetic Separation to Remove Oils From Aqueous Radio-	
	(V. N. Shchebetkovskiy, V. Ye. Vyatkin, et al.;	
	RADIOKHIMIYA, No 2, Mar-Apr 84)	
Senarat1	on of Radioactive Isotopes of Manganese Without	
•	r From Irradiated Targets	
001110	(A. N. Zakharov, B. Z. Iofa, et al.;	
	RADIOKHIMIYA, No 2, Mar-Apr 84)	81
RUBBERS AND ELA	STOMERS	
Cyclohex	yl Esters of GlycolsPlasticizers for Rubber Mixtures	
•	(S.B. Zeynalov, L. S. Agayeva, et al.;	
	AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 4.	
	Oct-Dec 83)	83
WATER TREATMENT		
Use of I	onizing Radiation to Purify Waste Water of Monomers	
and Po		
	(Ye. P. Petryayev, A. M. Kovalevskaya, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 4, Apr 84)	84

Study of	Water Evaporation Depressors (M.V. Tovbin, V.G. Chalenko, et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 4, Apr 84)	84
MISCELLANEOUS		
Infrared	Reflection Spectra of RO2-Al(PO3)3 System Glasses (G. Kh. Mezhinskiy, Ya. Ya. Bol'shiy, et al.; IZVESTIYA AKADEMII NAUK LATVIYSKOY SSR: SERIYA KHIMICHESKAYA No 2, Mar-Apr 84)	86

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

	Influence of Conditions of High Temperature Treatment of Styrene-Divinylbenzene Copolymers on Porous Structure of Adsorbents Made From Them	
	(T. N. Burushkina, V. G. Aleynikov, et al.; KHIMICHESKAYA TEKHNOLOGIYA, No 3, May-Jun 84)	1
	Sorption Selectivity of Heavy Metal Complex Ions on Activated Charcoal	
	(L. S. Ivanova, S. L. Grabchak, et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 6, Jun 84)	1
	Hydrothermal Modification of Aluminum-Zirconium Adsorbents With Different Compositions	
	(V. M. Chertov, T. F. Makovskaya; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 6, Jun 84)	2
	Effect of Chemical Composition of Soloza K Carboxyl Cation Exchange Resins on Their Sorption Characteristics (Ye. I. Mal'ko, A. G. Boldyrev, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	2
	Irreversible Adsorption of Chromyl Chloride by Technical Carbon (A. V. Krasnobryzhiy, Ye. P. Smirnov; ZHURNAL	
	OBSHCHEY KHIMII, No 3, Mar 84)	3
ANALYT	ICAL CHEMISTRY	
	Conditions of Forming Silver Centers in Silver/Gamma Alumina Catalysts	
	(V. N. Vorob'yev, A. Yu. Korontsevich, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 3, May-Jun 84)	4

	Alumence of Alkaline Earth Metals on Reduction of Nickel-	
	Aluminum Catalysts	
	(N. G. Rizayeva, L. N. Vorob'yev; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 3, May-Jun 84)	5
	Spectrophotometric Determination of Decamethoxin Using Eosin	
	(A. I. Zhebentyayev; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 4,	
	Apr 84)	5
	Development of Standard Samples for Chemical Composition of	
	Sode Ash and Barium Salts	
	(A. G. Ivkov, I. P. Knigavko; KHIMICHESKAYA	6
	TEKHNOLOGIYA, No 3, May-Jun 84)	b
	Study of Quality Indexes of Urea With Addition of Urea- Formaldehyde	
	CL. 7. Kolesnik, A. M. Abrosimova, et al.;	
	KHIMICHESKAYA TEKHNOLOGIYA, No 3, May-Jun 84)	6
	Physical-Chemical Study of Phosphorites From Central Kyzylkumy	
	CM. N. Nabiyev, E. Abdurakhmanov, et al.; ZHURNAL	
	PRIKLADNOY KHIMII, No 5, May 84)	7
	Physical-Chemical Properties of Ammonium Nitrate-	
	Monoammonium PhosphateWater System at a N:P205 Ratio of 1:1	
	(G. A. Sorina, L. I. Bezlyudova, et al.; ZHURNAL PRIKLADNOY KHIMII, No 5, May 84)	7
CATA	LYSIS	
	Some Patterns of Selective Oxidation of Methane With Simple	
	and Complex Oxide Catalysts	
	(G. I. Golodets, V. A. Borko, et al.;	
	TEORETICHESKAYA I EKSPERIMENTAL'NAYA KHIMIYA, No 3, May-Jun 84)	8
	Hydrogenation of Unsaturated Hydrocarbons in Presence of Iron Acetylacetonate With Aluminum and Tin Chloride Additives	
	(P. S. Belov, N. V. Borunova, et al.; NEFTEKHIMIYA,	
	No 2, Mar-Apr 84)	9
	Conversion of 4,4-Dimethyl-1,3-Dioxane Into Isoprene in Presence of Bismuth Phosphates	
	(L. A. Novikova, N. G. Ivanova, et al.; NEPTEKHIMIYA,	
	No 2, Mar-Apr 84)	9

	Fylolysis of isobutane-Ethane Mixtures		
	(L. V. Shevel'kova, I. N. Guseva, et al.;		
	NEFTEKHIMIYA, No 2, Mar-Apr 84)	10	
	Thermal Stability of Hydrocarbon Antioxidants of Complex Molybdenum Type Compounds		
	(N. A. Nechitaylo, M. A. Dzyubina, et al.;		
		11	
	NEFTEKHIMIYA, No 2, Mar-Apr 84)	11	
	Nitrogen Compounds of Samotlor Crude Oil		
	(O. A. Beyko, V. D. Ogorodnikov, et al.; NEFTEKHIMIYA,		
	No 2, Mar-Apr 84)	11	
	Effect of Preparation Conditions on Properties of Copper-		
	Containing Catalysts for Hydration of Acrylonitrile		
	(I. O. Mikhaylishin, I. M. Yavna, et al.;		
	KHIMICHESKAYA TEKHNOLOGIYA, No 3, May-Jun 84)	12	
	Catalytic and Adsorptive Chemical Purification of Noble Gases,		
	Hydrogen and Methane From Oxygen		
	(A. S. Barabash, A. A. Golubev, et al.; KHIMICHESKAYA		
	PROMYSHLENNOST', No 6, Jun 84)	12	
	Use of Chelates Cu(II) and Ni(II) as Michaelis Reaction		
	Catalysts		
	(V. M. Potapov, Ye. G. Solozhenko, et al.;		
	ZHURNAL OBSHCHEY KHIMII, No 3, Mar 84)	13	
	Optically Active Chelates Cu(II) From Enaminoketones and		
	Schiff Basesas Catalysts for Addition of Aniline to		
	Benzylideneacetophenone		
	(V. M. Potapov, G. V. Panova, et al.; ZHURNAL	13	
	OBSHCHEY KHIMII, No 3, Mar 84)	13	
OMBI	USTION		
	New Data on Reactivity and Structure of Coals		
	(N. D. Rus'yanova, V. K. Popov, et al.; KHIMIYA		
	TVERDOGO TOPLIVA, No 3, May-Jun 84)	14	
	Peatures of Electronic Reduction of Organic Compounds		
	Modeling Fragments of Coal Matter		
	(5. G. Gagarin, A. A. Krichko; KHIMIYA TVERDOGO TOPLIVA,		
	No 3, May-Jun 84)	14	
	Effect of Inhibitors on Oxidation Process of Coals Under		
	Various Conditions		
	(T. G. Shendrik, V. A. Kompanets; KHIMIYA TVERDOGO		
	TOPLIVA, No 3, May-Jun 84)	15	

	Electrochemical Protection of Coals From Self-Heating and	
	Autoignition	
	(I. V. Aleksandrov, P. A. Burkov, et al.; KHIMIYA TVERDOGO TOPLIVA, No 3, May-Jun 84)	15
	Hydrogenation of Coals in Presence of Stationary-Bed Alumina- Cobalt-Molybdenic Catalysts	
	(Ye. A. Dembovskaya, Ye. L. Karmanova, et al.;	
	KHIMIYA TVERDOGO TOPLIVA, No 3, May-Jun 84)	16
	Hydrogenation of Gas Mixtures Having High Content of Oxides	
	of Carbon in Presence of Polymetallic Catalysts	
	(V. V. Lunin, O. V. Kryukov, et al.; KHIMIYA TVERDOGO	
	TOPLIVA, No 3, May-Jun 84)	16
	Study of High Temperature Gasification of Coal in Stream	
	(Ya. S. Zholudov, L. Ya. Afansenko; KHIMIYA TVERDOGO	
	TOPLIVA, No 3, May-Jun 84)	17
	Hydrodynamic Characteristics of Impregnated Graphites and	
	Composite Material TKM	
	(A. P. Kurshin; KHIMIYA TVERDOGO TOPLIVA, No 3,	
	May-Jun 84)	17
	Computation of Flash Point Temperatures of Gases and Vapors of Silicon-Organic Compounds in Air	
	(L. I. Nuzhda, M. A. Glikin, et al.; KHIMICHESKAYA	
	PROMYSHLENNOST', No 6, Jun 84)	18
	Effect of Additions of Acids on Thermal Decomposition of	
	Concentrated Solutions of Ammonium Nitrate	
	(Ye. B. Moshkovich, I. I. Strizhevskiy, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 6, Jun 84)	18
ELEC:	TROCHEMISTRY	
	Electron Accelerator as Ozone Generator	
	(L. M. Makarochkina, S. P. Buslayeva, et al.;	
	KHIMICHESKAYA PROMYSHLENNOST', No 6, Jun 84)	19
FOOD	TECHNOLOGY	
	Development of Means of Stabilizing Grape Juice by Using	
	Cation Exchange Resins in Electromagnetic Field	
	(N. U. Rizayev, A. M. Sadykov, et al.; UZBEKSKIY	
	KHIMICHESKIY ZHURNAL, No 3, May-Jun 84)	20

FREE RADICALS

Mechanically Initiated Free Radical Reactions in Polysaccharides	
(G. V. Abagyan, P. Yu. Butyagin; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	21
INORGANIC COMPOUNDS	
Synthesis and Radiological Study of New Iodoselenides of Some Rare Earth Metals	
(I. V. Protskaya, V. A. Trifonov, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 5, May 84)	22
Influence of Partial Replacement of Nickel or Yttrium by Other Metals on Hydrogen Absorption by Compound of YNi3 (V. V. Burnasheva, B. P. Tarasov; ZHURNAL	
NEORGANICHESKOY KHIMII, No 5, May 84)	22
Interaction of Titanium and Zirconium During Hydrolysis in Nitrate Solutions	
(A. A. Gurov, O. A. Sinegribova, et al.; ZHURNAL	•••
NEORGANICHESKOY KHIMII, No 5, May 84)	23
Gas Phase Oxidation Kinetics of Carbon Fiber (L. P. Kobets, M. A. Kuznetsova, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 5, May 84)	23
ION EXCHANGE PHENOMENA	
Study of Rate of Movement of Water in Ion-Exchange Columns (V. D. Verenko, N. A. Anikina, et al.; KH IMICHESKAYA TEKHNOLOGIYA, No 3, May-Jun 84)	25
NITROGEN COMPOUNDS	
X-Ray Structural Analysis of Tris(Ethylphenylamido) Phosphazohydride (EtPhN)3=NH and Nature of Phosphorous- Nitrogen Bond	
(M. Yu. Antipin, Yu. T. Struchkov, et al.; TEORETICHESKAYA I EKSPERIMENTAL'NAYA KHIMIYA, No 3,	
May-Jun 84)	26
ORGANOMETALLIC COMPOUNDS	
Thermal Behavior of Copper, Nickel and Cobalt Formates in Ammonia Atmosphere	
(C. A. Lazerko, Ye. M. Torkaylo, et al.; ZHURNAL	
NEORGANICHESKOY KHIMII, No 5, May 84)	27

ORGANOPHOSPHORUS COMPOUNDS

Synthesis of Tetraethyldiamidophosphonylethanal (V. A. Pavlov, M. P. Sokolov, et al.; IZVESTIYA	
VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 4, Apr 84)	28
Structure of Products of Acylation and Phosphorylation of Dimethyl-2-Oxopropyl Phosphonate	
(V. G. Sakhibullina, N. A. Polezhayeva, et al.;	
ZHURNAL OBSHCHEY KHIMII, No 5, May 84)	28
Reactivity of Cyclophosphorous Acids in Electrophilic Addition Reactions	
(V. V. Ovchinnikov, S. V. Cherezov, et al.;	
ZHURNAL OBSHCHEY KHIMII, No 5, May 84)	29
Reactivity of Hypophosphites, Part 7: Synthesis of 1,2-	
Alkadienephosphonous Acids and Their Derivatives	
(V. V. Belakhov, V. I. Yudelevich, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	29
Reactions of Diarylisocyanatophosphites with C-Acetyl- and C-Ethoxycarbonyl-N-Arylnitrile Imines	
(A. S. Panevin, Yu. G. Trishin, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	30
Reaction of Diethyl Ester of 1-Phenyl-2-Bromoethenylphosphonous Acid With Derivatives of Alkylidene- and Arylidenemalonic Acid	
(Ye. D. Mayorova, A. Yu. Platonov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	30
Synthesis and Study of Dissociation of Glycine-N-Methylene- Phosphonic Acid	
(A. V. Barusukov, T. A. Matkovskaya, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	31
Synthesis and Structure of 3-Aryl-2-(p-Fluorophenyl)Amino- 1,3,2-Oxazaphospholanes and Phosphorinanes	
(Ye Ye. Milliaresi, M. A. Kharshan, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	31
Phosphorus-Containing Enamines, Part 2: Phosphorylation of N-Vinyl-Substituted Tertiary Amides, Lactams and Cyclic	
Imides With Phosphorus Pentachloride	
(V. G. Rozinov, L. P. Izhboldina, et al.; ZHURNAL	22
	- 2 - 3

Study of Nitrosyl Ethyl Xanthogenate Compounds of Cr(I) With	
P(III)-Containing Organic Ligands by EPR	
(A. I. Chuykova, L. Ye. Ivantsov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	32
Kinetics of Reaction of Phenoxymethylphosphonic Acid With	
Glycidymmethacrylate	
(A. K. Khardin, O. I. Tuzhikov, et al.; ZHURNAI.	
OBSHCHEY KHIMII, No 5, May 84)	33
Reactions of 1-Aminoadamantane, 1-Amino Methyladamantane and	
2-Amino-Adamantane With Phosphorus Pentachloride	
(R. I. Yurchenko, T. Y. Klepa, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	33
N-1-(2-Dialkoxyphosphonyl)Vinyl-3-0xytriazoles	
(B. G. Liorber, Z. M. Khamatova, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	34
1,3,4-Bicyclophosphite of 2-Disoxy-alpha-D-Ribopyranose	
(E. Ye. Nifant'yev, M. P. Koroteyev, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	34
1,3,2-Diazaphosphocycloalkanes	
(E. Ye. Nifant'yev, A. I. Zavalishina, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 5, May 84)	34
New Phosphone Containing Complexons Based on 1,3-Diamino-	
Propanol and Investigation of Its Acidic Dissociation	
(R. Kh. Samakayev, N. M. Dyatlova, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 3, Mar 84)	35
Phosphoalkylated 2-Aminothiazoles	
(A. F. Prokof 'yeva, T. V. Aleshnikova, et al,;	
ZHURNAL OBSHCHEY KHIMII, No 3, Mar 84)	35
Nitration of 1-0xo-1-Phenyl-2- and 3-Phospholenes	
(I. Ye. Yefremova, V. M. Berestovitskaya, et al.;	
ZHURNAL OBSHCHEY KHIMII, No 3, Mar 84)	36
Reaction of Phosphinous Acid Thioesters With Benzaldehyde	
(V. A. Al'fonsov, I. S. Nizamov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 3, Mar 84)	36
Reactions of Trivalent Phosphorus Acid Thioesters With	
Chloroacetic Acids	
(O. G. Sinyashin, Sh. A. Karimullin, et al.; ZHURNAL	
ORSHCHEY KHIMIT No 3 Mar 84)	37

Synthesis Based on Vinylhydroxyspirophosphoranes	
(T. N. Kudryavtseva, N. B. Karlstedt, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 3, Mar 84)	37
Kinetics of Diphenylphosphinic Acid Hydrazide Reaction With Arylisocyanates in Benzene	
(N. I. Ya.chuk, M. I. Bodnaruk; ZHURNAL OBSHCHEY	
KHIMII, No 3, Mar 84)	38
Enthalpies of Mixing of Arsenic Trichloride With Some Unsaturated Hydrocarbons	
(V. G. Tsvetkov, V. A. Krylov, et al.; ZHURNAL OBSHCHEY KHIMII, No 3, Mar 84)	38
PESTICIDES	
Models for Predicting Expenditures for Experimental-Design	
Operations During Development of Chemical Means of Plant Protection	
(A. N. Bortsov, V. M. Zatsepin, et al.;	
KHIMICHESKAYA PROMYSHLENNOST', No 6, Jun 84)	39
PETROLEUM PROCESSING TECHNOLOGY	
Construction Delays Cause Losses	
(V. Avdevich, Yu. Levitskiy; SOVETSKAYA ROSSIYA,	
3 Aug 84)	40
Brief	
Drilling in Urengoy Field	43
Maximum Filtering Temperature of Diesel Fuel	
(T. N. Mitusova, T. N. Veretennikova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 5, May 84)	44
Effectiveness of Antiwear Additives in Oils of Various Chemical Compositions	
(M. G. Arslanov, V. F. Bol'shakov, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 5, May 84)	44
Ulyanovsk Oblast Petroleum	
(I. S. Lazareva, L. V. Aksenova; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 5, May 84)	45
Separation of Oil Components With Good Viscosity-	
Temperature Properties	
(A. M. Bezhanidze, K. I. Zimina, et al.; KHIMIYA I	45

Determination of Heat of Combustion of Jet Puels by Calculation Method	
(A. F. Gorenkov, T. A. Lifanova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 5, May 84)	46
Modern Trends in Development of Lubricating Oil Additive Production in USSR	
(Yu. T. Gordash, G. G. Burlaka; NEFTEPERERABOTKA I NEFTEKHIMIYA, 1982)	46
Electron-Microscope Study of Highly Alkaline Sulfonate Additives	
(L. V. Romanyutina, I. I. Mishunina, et al,;	
NEFTEPERERABOTKA I NEFTEKHIMIYA, 1982)	47
Study of Controlled Additive Feed on Motorless Laboratory Stands	
(S. I. Gorbenko, L. I. Kirilloya, et al.;	
NEPTEPERERABOTKA I NEPTEKHIMIYA, 1982)	47
Correlation Analysis of Laboratory Methods for Evaluating Additive Quality in Motor Oils	
(L. G. Konovich, A. T. Stavtsev, et al.;	
NEFTEPERERABOTKA I NEFTEKHIMIYA, 1982)	48
Producing Lubricating Cooling-Liquids Using NS-480 Sodium Sulfonate	
(B. V. Kachmar, V. S. Matselyukh, et al.; NEFTEPEREPABOTKA I NEFTEKHIMIYA, 1982)	48
Effect of Sulfur on Activity of Aluminum-Rhenium Catalysts in	
Steam Conversion of Isobutane	
(V. P. Rozhdestvenskiy, M. A. Ryashentseva, et al.;	4.0
NEFTEKHIMIYA, No 2, Mar-Apr 84)	49
Investigation of Carbon Deposits Forming on Al-Co-Mo Catalysts During Hydrocracking and Hydropurification by Derivatography Method	
(I. V. Makarenko, S. P. Rod'kin, et al.;	
NEFTEKHIMIYA, No 2, Mar-Apr 84)	49
Aromatization of n-Heptane Over Platinum Catalysts	
(D. Dimitrov, M. Gancheva, et al.; NEFTEKHIMIYA,	
No 2, Mar-Apr 84)	50
Selective Hydrogenation of Acetylene Hydrocarbons to Olefines	
in Presence of Complex Palladium Catalysts With Nitrogen Containing Ligands	
(G. M. Cherkashin, L. P. Shuykina, et al.;	
NEFTEKHIMIYA, No 2. Mar-Apr 84)	51

Effect of Rh-Complex Catalyst Composition on Synthetic	
Froducts of CO and H2	
(A. L. Lapidus, M. M. Savel'yev, et al.;	
NEFTEKHIMIYA, No 2, Mar-Apr 84)	51
Structure and Properties of Catalysts During Hydrogenation of	
CO Based on Intermetallides and Hydrides Containing Ni and Co	
(V. V. Lunin, O. V. Kryukov, et al.; NEFTEKHIMIYA,	
No 2, Mar-Apr 84),	52
Heterogenic-Catalytic Epoxidation of Propylene With	
Ethylbenzene Hydroperoxide	
(St. V. Kotov, R. S. Boyera; NEPTEKHIMIYA, No 2,	
Mar-Apr 84)	52
mat-Apr 04/	32
Changes in Physical-Chemical Properties During Storage of	
Industrial Pentaerythrite Ester	
(T. V. Il'ina, V. V. Gromova, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 5, May 84),,	53
PHARMACOLOGY AND TOXICOLOGY	
Toxicological Evaluation of Petroleum Lubricants Used as Base	
for Lubricating-Cooling Technological Substances	
(G. I. Cherednichenko, G. V. Porutskiy, et al.;	
NEPTEPERERABOTKA I NEPTEKHIMIYA, 1982)	54
Structure-Properties Relationship of Grafted Cellulose	
Copolymers Containing Antimicrobial Compounds	
(A. D. Virnik, V. A. Gorchakova, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	55
Chemical Construction and Intramolecular Structure of Water	
Soluble Copolymers of Vinyl Alcohol and Vinyl Acetate	
(Ye, V. Anufriyeva, R. A. Gromova, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	55
VISOROFIDERUDIARNIES SOIEDINENIIA, RO 0, 348 04/	33
POLYMERS AND POLYMERIZATION	
Practical Results of Polymer Research	
(V. Bibikov; SOVETSKAYA BELORUSSIYA, 14 Jul 84)	56
Photolytic Chain Oxidation of Polystyrene by Sunlight	
(S. I. Kuzina, A. I. Mikhaylov; TEORETICHESKAYA I	
EKSPERIMENTAL NAYA KHIMIYA, No 3, May-Jun 84)	60
Sulfamentian of Complehenenessales will be because of	
Sulfonation of Cyclohexanecarboxylic Acid in Process of	
Obtaining Caprolactam From Toluene	
(P. P. Yusupov, V. N. Shurayev, et al.; UZBEKSKIY	**
KHIMICHESKIY ZHURNAL, No 3, May-Jun 84)	61

Kinetics of Interaction of Dicyanodiamide With Epoxides in Presence of Copper or Zinc Acetylacetonates	
(O. L. Vorob'yev, B. N. Orlov, et al.; IZVESTIYA	
VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 4, Apr 84)	61
Surface Active Properties of Polyelectrolytes Based on	
Copolymers of Vinylbenzylbromide and Acrylic Acid	
(N. S. Salidzhanova, Kh. Rakhmatullayev, et al.;	
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY (KHIMIYA I	
KHIMICHESKAYA TEKHNOLOGIYA, No 4, Apr 84)	62
ARITHURESKAIA TEKHNOLOGIIA, NO 4, APT 04/	0.4
Suspension Copolymerization of Styrene With Acrylonitrile,	
Initiated by Peroxide of Fatty Acid Praction	
(S. S. Ivanchev, A. I. Ostrovskaya, et al.;	
PLASTICHESKIYE MASSY, No 6, Jun 84)	63
Effect of Isomerism of Digaycidyl Phthalates on Properties of Epoxide Polymers	
(I. M. Shologon, N. A. Yurechko, et al.;	
PLASTICHESKIYE MASSY, No 6, Jun 84)	63
Properties of Phenolformaldehyde Foam Plastic, Foamed Under Direct Current Electrical Field	
(V. D. Shantarin, V. I. Shevchenko; PLASTICHESKIYE	
MASSY, No 6, Jun 84)	64
MASSI, NO 0, Jun 04/	04
Radiational Electroconductivity of Some Polymer-Based	
Composites	
(V. P. Sichkar', O. S. Aleksanina, et al.;	
PLASTICHESKIYE MASSY, No 6, Jun 84)	64
Thermophysical Properties of Organic Fibers at 5-400 K	
Temperature Interval	
(S. A. Tanayeva, L. S. Domorod, et al.;	
PLASTICHESKIYE MASSY, No 6, Jun 84)	65
Synthesis of Methacrylic Acid Esters and Amides Containing	
Residual Antimicrobial Compounds	
(V. A. Gorchakova, B. I. Budzan, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 5, May 84)	65
remarkable killing, no 3, may ovy	0.3
Copolymerization Kinetics of Tetrafluoroethylene With	
Perfluoroalkylvinyl Ethers With Various Structures	
(L. G. Kochkina, V. A. Yerokhova, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 5, May 84)	66
Polymerization of Epoxide Resin on Surface of Modified Carbon	
Piber	
(V. I. Dubkova, I. N. Yernolenko, et al.;	
TYCOYOMOL PRIN VARNOVE COVEDINENTVA No. 6 Jun 84)	66

	Cyanate With 1,6-Hexamethylenediisocyanate in Presence of Tris-(Diethylamido)Phosphite	
	(M. I. Bakhimov, I. G. Davletbayev, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	67
	Thermal Characteristics of Irradiated Polyethylene	
	(B. A. Briskman, S. I. Rozman; VYSOKOMOLEKULYARNYYE	
	SOYEDINENIYA, No 6, Jun 84)	67
	Effect of Stereoisomerism of Regularly Alternating Isoprene-	
	Propylene Copolymers on Its Thermodynamic Properties	
	(N. N. Smirnova, B. V. Lebedev, et al.;	68
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	00
	Polymerization of 10-Vinylphenothiazine in Presence of Tin Chlorides	
	(L. I. Svyatkina, L. L. Gayntseva, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	68
RUBBER	AND ELASTOMERS	
	Modification of Butadienenitrile Rubber Using Hydrazine	
	Derivatives in Order To Increase Its Thermal Stability	
	(V. Ye. Derbisher, V. F. Kablov, et al.; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 4, Apr 84)	69
	Tornation of Fluorolone Coverings on Rubber	
	(A. M. Ogrel', A. M. Khaymovich, et al.; IZVESTIYA	
	VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 4, Apr 84)	70
	Improving Performance of Rubber Based on Combining Rubbers of	
	Differing Polarity by Using Nonpolar Rubber With Chemical Modification of Side Chains	
	(A. M. Ogrel', A. V. Safonov, et al.; IZVESTIYA VYSSHIKH	
	UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 4, Apr 84)	70
	Conditions of Formation and Properties of Polymer Mixtures of	
	Polyelectrolyte Complexes and Acrylate Latexes	
	(C. B. Shalbayeva, T. V. Nikolayeva, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 6, Jun 84)	71

WATER TREATMENT

Electrochemical Desalination of Water Under Conditions of Periodic Treatment of Desalination Chambers With Hydrogen Peroxide (V. D. Grebenyuk, V. I. Pisaruk; ZHURNAL PRIKLADNOY KHIMII, No 5, May 84)	72
Peroxide (V. D. Grebenyuk, V. I. Pisaruk; ZHURNAL PRIKLADNOY KHIMII, No 5, May 84)	
Spontaneous Decomposition of Hydrogen Peroxide Solutions (Yu. I. D'yachenko, T. A. Tumanova, et al.; IZVESTIYA	
Spontaneous Decomposition of Hydrogen Peroxide Solutions (Yu. I. D'yachenko, T. A. Tumanova, et al.; IZVESTIYA	72
(Yu. I. D'yachenko, T. A. Tumanova, et al.; IZVESTIYA	
TVCFUTVU TCUPRAVVU ZAVEDENTVA VUTNIVA I VUINICUECVAVA	
VYSSHIKH UCHEBNYKH ZAVEDENIY: KRIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 4, Apr 84)	73

USSR REPORT CHEMISTRY

CONTENTS

ALKALOIDS	
Unified Method of Photometric Extraction Determination of Tropane Alkaloids in Dry Extract and in Tincture of	
Belladonna (V. G. Belikov, V. A. Karpenko, et al.; FARMATSIYA, No 3, May-Jun 84)	1
Extraction of Cytisine From Vegetable Material Using Liquefied Ammonia	
(D. N. Danil'chuk, B. A. Yankovskiy; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 2, Mar-Apr 84)	1
BIOCHEMISTRY	
Influence of Carbon Sources in Medium Upon Composition of Phospholipids in Fungus of Genus Fusarium (N. R. Iyevleva, L. M. Bragintseva, et al.; FARMATSIYA, No 3, May-Jun 84)	3
CATALYSIS	
Chemical Nature of Catalytic Pyrolysis of Hydrocarbons: Evaluation of Range of Effect of Catalysts on Pyrolysis (N. A. Vasil'yeva, R. A. Buyanov, et al.; KHIMICHESKAYA FIZIKA, No 5, May 84)	h
Differential Thermal Analysis of Catalysts of Phenol Alkylization Process Using C8-C10ALPHA-OLEFINS	
(G. S. Ovanesova, R. Ye. Spivak, et al.; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 5, May 84)	4
Oxidative Dehydrodimerization and Aromatization of Isobutylene on Acidic Tin-Containing Catalysts (V. P. Vislovskiy, A. B. Azimov, et al.; AZERBAYDZHANSKIY	
KHIMICHESKIY ZHURNAL, No 5. May 84)	5

Electrochemical Conversions of Oxygen on Vanadium Oxide Surfaces (Kh. Z. Braynina, E. V. Bazarova, et al.; ELEKTROKHIMIYA, No 5, May 84)	5
Study of Properties of Catalyst SVS, Synthesized at High	
pH Values	
(V. I. Malkiman, I. A. Kravtsova, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 4, Apr 84)	6
Dissociation Temperature of Oxides and Catalytic Activity in Processes Involving Oxygen	
(A. I. Vitvitskiy, I. Ya. Tyuryayev; ZHURNAL	
PRIKLADNOY KHIMII, No 4, Apr 84)	6
Study of Surface Compounds of Platinum on Alumina-Platina Catalysts During Thermal Treatment	
(D. K. Krachilov, B. B. Zharkov, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 4, Apr 84)	7
The manufacture of the conference of the confere	,
CHEMICAL INDUSTRY	
Progress in Chemical Industry	
(V. Listov; SOTSIALISTICHESKAYA INDUSTRIYA, 27 May 84)	8
Progress in Chemical Industry	
(I. Muradov; STROITEL'NAYA GAZETA, 27 May 84)	11
Allene Gas Research	
(N. Khlebodarov; KOMSOMOL'SKAYA PRAVDA, 23 May 84)	13
Brief	
Armenian Plastics Production Up	15
Coal-Tar Chemistry and Food Program	
(V. M. Zaychenko, M. I. Rudkevich, et al.; KOKS I KHIMIYA, No 6, Jun 84)	16
COAL GASIFICATION	
Composition of Circulating and Vented Gases of Unit for Dry Slaking of Coke	
(S. P. Rod'kin, A. P. Korobeynikov, et al.; KOKS I	
KHIMIYA, No 6, Jun 84)	17
COMBUSTION	
Pyrolysis of n-Octane on Zeolite-Containing Catalyst	
(M. R. Bayramov, A. F. Aminbekov, et al.;	- 4
AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 5, May 84)	18
Combustion of Sulfur Drops and Transition of Diffusion Burning	
to Explosive	
(A. P. Shelyakin, A. S. Klepach, et al.; ZHURNAL	18
PRIKLADNOY KHIMII, No 4, Apr 84)	10

ELECTROCHEMISTRY

Study of Hydride-Hydrogen Electrodes	
(Ba T'at Nguyen, A. L. Levinskas; ELEKTROKHIMIYA,	
No 5, May 84)	19
Bioelectrocatalytic Conversions of Hydrogen Peroxide and Lactate on Solid Electrodes	
(vu. Yu. Kulis, A. S. Samalyus; ELEKTROKHIMIYA, No 5, May 84).	19
Absorption of Acetylene in Liquid Gas Accumulator While Using Acetylene-Acetone Gas Hydrate	
(E. A. Boguslavskiy, Yu. I. Samosudov; ZHURNAL PRIKLADNOY KHIMII, No 4, Apr 84)	20
Analysis of Impurities in Propylene Carbonate for Chemical Batteries	
(I. G. Zenkevich, G. I. Bystrova, et al.; ZHURNAL	
PRIKLADNOY KHIMII, No 4, Apr 84)	20
EXPLOSIVES AND EXPLOSIONS	
Role of Phase State of Carbon in Evaluating Detonation	
Parameters of Condensed Substances	
(S. A. Gubin, V. V. Odintsov, et al.; KHIMICHESKAYA	
FIZIKA, No 5, May 84)	55
Calculation of Parameters of Shock Waves in Air After Detonation of Gas Mixtures	
(G. Ye. Gel'fand, S. A. Gubin, et al.; KHIMICHESKAYA	
FIZIKA, No 6, Jun 84)	22
INORGANIC COMPOUNDS	
Influence of Treatment Temperature on Adsorptive and	
Electrochemical Properties of Activated Carbon in	
Reactions of Electroreduction of Molecular Chlorine	
(L. I. Khmylko, G. V. Shteynberg, et al.; ELEKTROKHIMIYA,	
No 5, May 84)	23
Interaction of Metals With Water Under Conditions of Dynamic Compression	
(S. S. Vatsanov, Ye. V. Lazareva, et al.; KHIMICHESKAYA	
FIZIKA, No 6, Jun 84)	23
Method for Preparing Ultra Pure Bromine Using Cryogenic Vacuum Technique	
(G. G. Gospodinov; ZHURNAL PRIKLADNOY KHIMII, No 4, Apr 84)	24

ION EXCHANGE PHENOMENA

Application of Method of Standard Porosimetry To Study Porous Structure of Ion Exchange Membranes (Yu. M. Vol'fkovich, V. K. Luzhin, et al.; ELEKTROKHIMIY	Δ.
No 5, May 84)	25
PESTICIDES	
Economics of Using Pesticides (V. A. Zakharenko; ZASHCHITA RASTENIY, No 1, Jan 83)	26
PETROLEUM PROCESSING TECHNOLOGY	
Benzine-Hydrogen Fuel (SOTSIALISTICHESKAYA INDUSTRIYA, 15 Jun 84)	30
Gas Condensate Automobile Fuel (Yu. Kruzhilin; SOTSIALISTICHESKAYA INDUSTRIYA, 31 May 8	34) 31
Source for Formation of Oxidation Products in Petroleum Motor	
(Ya. B. Chertkov, T. I. Kirsanova; ZHURNAL PRIKLADNOY KHIMII, No 4, Apr 84)	33
PHARMACOLOGY AND TOXICOLOGY	
Trichothecene Toxins (A. A. Trostanetskiy; KHIMIYA I ZHIZN', No 5, May 84)	34
Synthesis of Acetylenic Derivatives of Aliphatic Acids (A. G. Makhsumov, M. S. Ergashev; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 2, Mar-Apr 84)	
POLYMERS AND POLYMERIZATION	
Thermostable and High-Strength Polymer Materials (L. B. Sokolov; TERMOSTOYKIYE I VYSOKOPROCHNYYE POLIMERNYYE MATERIALY (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE: SERIYA KHIMIYA), No 4, Apr 84)	
From Discovery to Introduction	30
(G. Sidorova; SOTSIALISTICHESKAYA INDUSTRIYA, 30 Mar 84)	39
Soviet Versus Foreign Technology (Interview; B. Konovalov, Nikolay Sergeyevich Yenikolopov; IZVESTIYA, 21 May 84)	41
Minsk Bearing Plant Develops Use of Plastic (N. Simkhovich; PROMYSHLENNOST' BELORUSSII, No 3, Mar 84) 46

Prolong	ged Durability of Polyolefin Thermoelastoplastics (R. M. Aliguliyev, D. M. Khiteyeva, et al.; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 5, May 84)	49
Use of	Cg Fraction of Liquid Pyrolysis Products	
	(R. V. Vasilev, S. P. B'yerneva; AZERBAYDZHANSKIY KHIMICHESKIY ZHURNAL, No 5, May 84)	49
Polyn	dynamics of p-Methacryloyloxybenzoic Acid, Its merization and Formation of Poly-p-Methacryloyloxybenzoic at 0-500°K	
	(B. V. Lebedev, N. K. Lebedev, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	50
Synthes	sis and Evaluation of Anion-Active Polyurethanes	
	(S. A. Sukhorukova, N. I. Levchenko, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	51
Synthes	is and Structure of Alternating Isoprene Ethylene Copolymers	
	(L. A. Myagkova, Ye. N. Kropacheva, et al.,	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	51
Enhance	ed Thermal Stability of Rigid Polyimides	
	(L. A. Layus, Ye. N. Dergacheva, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	52
	Limiting Reactions in Ethylene Polymerization on Supported cometallic Catalysts	
	(V. A. Zakharov, L. G. Yechevskaya, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	52
	of Method of Preparation of Polymers on Ionizing	
	(O. S. Aleksanina, V. P. Sichkar', et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	53
	on-Induced Liquid-Phase Grafting of Acrylic Acid to	
	(A. P. Polikarpov, I. F. Osipenko, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	53
	Transition in Heterogeneous Polymeric Systems With High e of Phase Separation	
-0-	(Yu. S. Lipatov, V. F. Rosovitskiy, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	54
Reversi	ble Radiation Effects in Polymer Heat Capacity	
	(B. A. Briskman, S. I. Rozman, et al.;	
	VYSOKOMOLEKII VARNYYE SOYEDINENIYA NO 5 May Al)	54

Brominated Polyphenyleneoxides: Thermal Destruction and Fire Retardants in Polymers	
(R. M. Gitina, L. A. Oksent'yevich, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	55
Deformation Thermodynamics of Polydimethylsiloxane Copolymers	
(S. G. Tarasov, V. P. Yakimtsov, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 5, May 84)	55
Surface Destruction of Epoxy Polymers by Microorganisms (Yu. S. Zaytsev, O. G. Bobrov, et al.; PLASTICHESKIYE MASSY, No 5, May 84)	56
Epoxide Powder Composition Materials for Coatings	
(A. F. Voloshkin, Yu. M. Lomov, et al.; PLASTICHESKIYE MASSY,	
No 5, May 84)	56
Thermal Aging of Halogen-Containing Fire-Resistant Elastic Epoxy Polymers	
(V. F. Stroganov, I. S. Stepanova, et al.; PLASTICHESKIYE	
MASSY, No 5, May 84)	57
Heat Resistance and Thermal Stability of Allyl Polymers	
(V. M. Savos'kin, L. V. Lunev, et al.; PLASTICHESKIYE	
MASSY, No 5, May 84)	58
Thermal and Shock Resistance of Polymers Formed From	
Oligoester Epoxy Block-Oligomer	
(E. V. Amosova, N. F. Khakhalina, et al.; PLASTICHESKIYE MASSY, No 5, May 84)	58
Diethyleneglycol-Bis-AllylcarbonateMonomer for Transparent Polymeric Material With Increased Abrasion Resistance	
(N. N. Alekseyev, A. I. Borbulevich, et al.;	
PLASTICHESKIYE MASSY, No 5, May 84)	59
Relationship Between Titanium-Aluminum Complexes and Nature of Aryloxy Radicals Bound to Titanium Atom During Ethylene Polymerization	
(Kzh. Shchegot, M. Novakovska, et al.;	
VYSOKOMOLEKULYARNYYE SOTEDINENIYA, No 4, Apr 84)	59
Polymerization of Acrylic Monomers in Presence of Sulfuric Acid (N. V. Kozhevnikov, A. V. Trubnikov, et al.;	
VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	60
Study of Initiation Capability of Phenazine, Acridine and Anthracene in Polymerization Reactions of Butylmethacrylate in Tetrahydrofuran	
(I. V. Drozdenko, I. A. Dolidze, et al.;	60
UVSOKOMOLEKIL VARNYVE SOVEDINENIYA No li Apr 84)	OU

	of Rigid-Chain Polymers of Varying Rigidity (B. Z. Volchek, A. V. Purkina, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	61
	Calorimetric Study of Melting and Crystallization of Irradiated Polyethylene (V. P. Gordiyenko, S. S. Demchenko, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 94)	61
	Effect of Fillers on Polymerization of Oligoesteracrylates in Gelation Process of Polyvinyl Chloride Plastisols (V. B. Mozzhukhin, V. V. Guzeyev, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	62
	Rheological Properties of Homogeneous and Nonhomogeneous Blends of Polyvinylidene Fluoride and Polymethylmethacrylate (O. V. Romankevich, N. P. Suprun, et al.;	
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	62
	Low Temperature Radiation Polymerization of Triethylene Glycol alpha, omega-Dimethacrylate	
	(V. R. Duflot, E. P. Klinshpont, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	63
RUBBER	AND ELASTOMERS	
	Arsenal of ChemistryCompetition for Lenin Prize (N. Kochetkov, N. Emanuel'; PRAVDA, 31 Mar 84)	64
	Acceleration in Omsk	
	(V. Kremer; SOTSIALISTICHESKAYA INDUSTRIYA, 30 Mar 84)	67
	Strength of Rubber Containing Rubber Particles and Ground Rubberized Cord	
	(A. I. Kamenshchikov, O. G. Polyakov, et al.; KAUCHUK I REZINA, No 5, May 84)	72
	Mutual Influence of Additives and Vulcanizing Agent on Cryt'allization of Natural Rubber	
	(N. L. Severina, N. M. Gal'perina, et al.; KAUCHUK I REZINA, No 5, May 84)	72
	Use of Vapor-Phase Analysis for Analytical Control of Waste Water From Tire Production	
	(N. N. Sirotkina, M. V. Minina, et al.; KAUCHUK I REZINA, No 5, May 84)	73
	Relaxational Processes in Elastomers Related to Super- molecular Structure, Studied by Creep Analysis	
	(N. P. Zoteyev, G. M. Bartenev, et al.;	74
	VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 4, Apr 84)	14

WCOD CHEMISTRY

Fire-Protective Properties of Some Phosphorous-Containing	
Compounds	
(Ye. N. Pokrovskaya, T. P. Nikiforova, et al.;	
KHIMIYA DREVESINY, No 3, May-Jun 84)	75
Group Composition of Chlorophyll-Carotene Paste and of	
Provitamin Concentrations of Coniferous Greens	
(I. S. Pavlutskaya, V. I. Roshchin, et al.; KHIMIYA DREVESINY, No 3, May-Jun 84)	75

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

	Adsorptive and Electrocatalytic Properties of Platinized Platinum, Modified by Silver Adatoms	
1	(M. M. D. Khimenes, et al.; ELEKTROKHIMIYA,	
	No 6, Jun 84)	1
	NO 0, Jun 04/	4
ANALYT	ICAL CHEMISTRY	
	Determination of Arsenic (III) in Acetonitrile by Method	
	of Inversion Voltamperometry on Platinum Electrode	
	(A. A. Ramadan, et al.; ZHURNAL ANALYTICHESKOY	
	KHIMII, No 7, Jul 84)	2
	Mutual Effect of As(III)-Hg(II) System Components and	
	Analytical Signals in Inversion Voltamperometry Method	
	(A. I. Kanenev, et al.; ZHURNAL ANALITICHESKOY	
	KHIMII, No 7, Jul 84)	2
	Gas Chromatographic Determination of Volatile Sulfur Fluorides in Air	
	(V. G. Berezkin, Yu. S. Drugov; ZHURNAL	
	ANALITICHESKOY KHIMII, No 7, Jul 84)	3
BIOCHE	MISTRY	
	Determination Method of Mass Exchange Coefficients for Oxygen Absorption in Biological Reactors	
	(G. P. Piterskikh; TFORETICHESKIYE OSNOVY	
	KHIMICHESKOY TEKHNOLOGII, No 4, Jul-Aug 84)	4
CATALY	SIS	
	Oxidation of Ascorbic Acid With Molecular Oxygen Catalyzed With Tetrabenzo-Tetraazamacrocyclic Copper Complex	
	(K. B. Yatsimirskiy, Ya. Labuda; DOKLADY AKADENII	
	NAUK SSSR, No 4, Jun 84)	5

Formation of Organic Products During Reduction of	
Carbon Dioxide in Aqueous Solutions in Presence of	
Luminophores	
(Ye. A. Shishkina, et al.; DOKLADY AKADEMII NAUK	
SSSR, No 4, Jun 84)	6
Study of Alumina-Platina Catalysts, Calcined in	
Chlorine-Containing Gas	
(B. B. Zharkov, et al.; ZHURNAL PRIKLADNOY	
KHIMII, No 3, Mar 84)	6
Recrystallization of Highly Dispersed Platinum Catalysts	
Under Effect of Reaction Hedium	
(T. V. Kuzora, A. B. Fasman; ZHURNAL PRIKLADNOY	
KHIMII, No 3, Mar 84)	7
New Highly Active Supported Palladium-Containing	
Catalysts for Selective Hydrogenation of Conjugated	
Dienes Into Olefins	
(A. V. Novikova, et al.; KINETIKA I KATALIZ,	
No 3, Hay-Jun 84)	7
Oxidation of Olefins Under Nonstationary Conditions	
Over Molybdenum-Containing Catalysts	
(M. Yu. Kutyrev, et al.; KINETIKA I KATALIZ,	
No 3, May-Jun 84)	8
Hydrocarbon Synthesis From CO and H2 Over Catalysts	
Obtained by Thermal Decomposition of Carbonyl Clusters	
of Iron	
(A. L. Lapidus, et al.; KINETIKA I KATALIZ, No 3,	
May-Jun 84)	8
Synthesis and Properties of Catalysts Obtained From	
Silicon-Molybdenum-vanadium Heteropoly Acids, Part 2:	
Properties of Catalysts in Oxidation Reactions of Acrolein	
to Acrylic Acid	
(N. N. Chumachenko, et al.; KINETIKA I KATALIZ,	
No 3, May-Jun 84)	9
Iron Sulfate - Selective Catalyst for Dealkylation of	
2,6-Di-Tert-Butyl-4-Mathyl Phenol	
(Ye. T. Gorodetskiy, P. M. Gorbovoy; KINETIKA I	
KATALIZ, No 3, May-Jun 84)	9
Possibility of Detection of Ionic Platinum Form in	
Aluminum-Platinum Catalysts	
(O. A. Kryukova, et al.; ZHURNAL FIZICHESKOY	
KHIMITI No 7 Jul 84)	10

	Chemosorption and Intrinodesorption of Hydrogen on	
	Supported Rhenium Catalysts	
	(Kh. M. Minachev, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 7, Jul 84)	10
	Conversions of 1,1-Diacetylcyclopropane on Palladium	
	Catalyst	
	(R. A. Karakhanov, et al.; IZVESTIYA AKADEMII	
	NAUK SSSR: SERIYA KHIMICHESKAYA, No 7, Jul 84)	11
	Distribution of Gas Velocity Fields in Fixed Granular	
	Catalyst Bed During Lateral Injection Into Catalyst Apparatus	
	(Ye. V. Badatov, et al.; TEORETICHESKIYE	
	OSNOVY KHIMICHESKOY TEKHNOLOGII, No 4, Jul-Aug 84)	11
	USHOVI KRIMICHESKUI IEKHNOLOGII, NO 4, Jul-Aug 64)	11
	Aromatization of Ethylene on High-Silicon Zeolites	
	(O. V. Bragin, et al.; IZVESTIYA AKADEMII NAUK	
	SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	12
	Behavior of Copper-Ruthenium Catalsts in Enantioselective	
	Hydrogenation	
	(T. I. Kuznetsova, et al.; IZVESTIYA AKADEMII NAUK	
	SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	12
	Effect of gamma-Radiation on Catalytic Activity of Oxides	
	of Titanium and Zirconium in Carbon Dioxide Reduction	
	Processes	
	(Ye. A. Shishkina, et al.; ZHURNAL NEORGANICHESKOY	
	KHIMII, No 8, Aug 84)	13
	Prediction and Calculation of Catalyst Activity in	
	Metal-Electrolyte Systems	
	(G. S. Nikolayev; ELEKTROKHIMIYA, No 8, Aug 84)	13
	Behavior of Sulfur-Poisoned Palladium Electrodes During	
	Cyclic Anode-Cathode Polarization	
	(A. A. Sutyagina, V. A. Perepelitsa; ELEKTROKHIMIYA,	
	No 8, Aug 84)	14
CHEMI	CAL INDUSTRY	
	Laggers are Cited	
	(SOTSIALISTICHESKAYA INDUSTRIYA, 17 Aug 84)	15
	Study of Separating Capacity of Cyclonic Foam Quencher	
	(S. V. Shorin, et al.; ZHURNAL PRIKLADNOY KHIMII,	
	No 3, Mar 84)	17

COAL GASIFICATION

	Study of Process of Filtration of Synthetic Fuel (V. F. Khromykh; ZHURNAL PRIKLADNOY KHIMII, No 3, Har 84)	18
		10
COM	BUSTION	
	Pyrolysis of Silane and Silane-Ammonia Mixtures by Laser IR-Heating	
	(V. V. Nosov, et al.; KINETIKA I KATALIZ, No 3, May-Jun 84)	19
	Study of Electrophysical Processes During Spontaneous Combustion of Gases and Vapors of Organic Substances (B. S. Fialkov, et al.; KINETIKA I KATALIZ,	
	No 3, May-Jun 84)	19
ELEC	CTROCHEMISTRY	
	Washings of Nations Web Uses and Webst Alaskal as	
	Mixtures of Diglyme With Water and Ethyl Alcohol as Media for Electrochemical Reduction of Difficult-to-Reduce Organic Compounds	
	(G. P. Girina, et al.; ELEKTROKHIMIYA, No 6,	
	Jun 84)	21
	Adsorption and Electrochemical Behavior of Benzene and its Chlorine Derivatives on Smooth Platinum Electrode (V. Ye. Kazarinov, et al.; ELEKTROKHIMIYA, No 6,	
	Jun 84)	21
	Effect of Magratory Current on Alkali Diffusion Through Chlorine Electrolyser Diaphragm	
	(G. I. Volkov, et al.; ELEKTROKHIMIYA, No 6, Jun 84)	22
	Structuring Bacteriorhodopsin in Bilaminar Lipid Membrane by Single Layer Method	
	(V. M. Mirskiy, et al.; ELEKTROKHIMIYA, No 6,	
	Jun 84)	23
	Enthalpies of Lithium Tetrafluoroborate Solution in	
•	Water, Y-Butyrolactone and in Their Mixtures (T. F. Vasekina, et al.; ZHURNAL FIZICHESKOY KHIMII,	
	No 7, Jul 84)	23
	Relationship Between Diffusional and Migrational Mobility of Sodium Ions in Perfluorinated Sulfocation Exchange	
	Hembranes	
	(M. A. Spitsyn, et al.; ELEKTROKHIMIYA, No 8, Aug 84)	24
	aug 07/111111111111111111111111111111111111	

	Electron Photoemission into Nonaqueous Media: Delocalized	
	Electron Energy of Interaction With Solvent	
	(R. G. Kokilashvili, et al.; ELEKTROKHIMIYA,	
	No 8, Aug 84)	24
	Study of Au and Ag Coadsorption on Germanium Electrode	
	(O. V. Romanov, A. M. Yafyasov; ELEKTROKHIMIYA,	
	No 8, Aug 84)	25
	Electrochemical Oxidation of Glyclclycine on Silver	
	(Ye, H. Tarasevich, et al.; ELEKTROKHIMIYA, No 8,	0.5
	Aug 84)	43
	Reactions of Hydrogen and Oxygen Liberation on Carbon	
	Samples Treated at Different Temperatures	
	(Ye. D. Serezhenko, et al.; ELEKTROKHIMIYA,	
	No 8, Aug 84)	26
	Electrochemical Standard for Ellipsometry	
	(N. Yu. Lyzlov, V. I. Pshenitsyn; ELEKTROKHIMIYA,	
	No 8, Aug 84)	26
	no o, aug 04/	
	Electroconductivity of Sodium Selective Membranes Based on	
	Neutral Complexons	
	(G. I. Shumilova, et al.; ELEKTROKHIMIYA, No 8,	
	Aug 84)	27
FREI	E RADICALS	
	Kinetic and Spectral Characteristics of Normal and Cyclic	
	Hydrocarbon Radicals	
	(B. Ya. Ladygin, et al.; IZVESTIYA AKADEMII NAUK SSSR:	
	SERIYA KHIMICHESKAYA, No 5, May 84)	28
TNOT	DCANTC COMPOUNDS	
TMOS	RGANIC COMPOUNDS	
	Reaction of Zinc Oxide With Chlorine	
	(L. Ye. Derlyukova, et al.; ZHURNAL NEORGANICHESKOY	
	KHIMII, No 8)	29
	Kinetics of Thermal Decomposition of Nitrozonium	
	Trinitratouranylate and Anhydrous Uranyl Nitrate	
	(G. N. Klavaut'; ZHURNAL NEORGANICHESKOY KHIMII,	
	No 8, Aug 84)	29
	Interaction and Glassification Region in System As2S3-Yb2S3	
	(T. M. Il'yasov, et al.; ZHURNAL NEORGANICHESKOY 2 3	20
	KHIMII, No 8, Aug 84)	30
	Mechanism of Structure Formation of Products in Processes	
	of Selfpropagating High-Temperature Synthesis	
	(Yu. M. Maksimov, et al.; DOKLADY AKADEHII NAUK	
	SSSR, No 4, Jun 84)	30

Enthalpy and Heat Capacity of Sr0 in 1180-2650 K Range (Kh. Irgashov, et al.; ZHURNAL FIZICHESKOY	٠
KHIMII, No 7, Jul 84)	31
Thermochemical Study of Trioxaazaboratricycloalkanes	
(V. P. Vorob'yeva, et al.; IZVESTIYA AKADEMII	
NAUK SSSR: SERIYA KHIMICHESKAYA, No 7, Jul 84)	31
ORGANOMETALLIC COMPOUNDS	
Contribution of Intermolecular Associates and Configurational	
Inversion of Antimony Bonds to Conformational Exchange of Certain 1,3,2-Dioxastibinanes and 1,3,2-Dioxastibepines	
(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 7, Jul 84)	32
ORGANOPHOSPHORUS COMPOUNDS	
Influence of N-Alky Substituent and Counterion on	
Kinetics of Radical Polymerization of Monomer Quaternary Diallyl Salts	
(G. T. Nazhmetdinova, et al.; IZVESTIYA AKADEMII	
NAUK SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	33
Molecular and Cryotalline Structure of Phenyl- d-	
Oxycyclohexylphosphinic Acid Chloride CpH5(CYCLO-C5H10OH) P(O)Cl	
(N. A. Kardanov, et al.; IZVESTIYA AKADEMII NAUK	
SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	34
Molecular and Crystalline Structure of rel-(rR,6R)-5-	
Thio-5-Phenyl-2,4,6-Triisopropyl-1,3,5-Dioxaphosphorinane	
(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK	
SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	34
Attachment of Nucleophilic Agents to Vinylidine Diphosphonic	
Acid, Part 2: Reaction of Vinylidine Diphosphonic Acid	
With Primary Amine, Ammonia and Hydrazine	
(I. S. Alfer'yev, et al.; IZVESTIYA AKADEMII NAUK	
SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	35
Derivatives of 3-Chlorc-4,5-Benzo-1,2,-Oxaphospholane	
(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK SSSR:	
SERIYA KHIMICHESKAYA, No 5, May 84)	35
Reactions of Diazaphosphols With Isocyanates	
(B. A. Arbuzov, et al.; IZVESTIYA AKADEMII NAUK	
SSSR: SERIYA KHIMICHESKAYA, No 5, May 84)	36
PESTICIDES	
Chemistry and Food	
(Eduard Grigor'yevich Rozantsev; NOVOYE V ZHIZNI,	
NAUKE, TEKNIKE, SERIYA: KHIMIYA, No 5, May 84)	37
,,,,,,,	

PETROLEUM PROCESSING TECHNOLOGY

Drills Advancing on Steppe	
(G. Sazonov; PRAVDA, 17 Jul 84)	46
Millions Without Profit	
(V. Kuz'mishchev, M. Odinets; PRAVDA, 17 Jul 84)	48
Armor for Pipelines	
(V. Lagovskiy; SOTSIALISTICHESKAYA INDUSTRIYA,	
19 Aug 84)	52
Catalytic Conversion of Cumene Under Hydrogen Pressure	
(N. G. Krupenya, et al.; ZHURNAL PRIKLADNOY	
KHIMII, No 3, Mar 84)	54
PHARMACOLOGY AND TOXICOLOGY	
Gas Chromatographic Determination of Content of Harmful	
Substances in Air of Industrial Locations	
(V. M. Pantayeva, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	55
POLYMERS AND POLYMERIZATION	
Properties of Polycaproamide Fibers Modified by Grafted	
Polyacrylonitrile	
(S. E. Shalabi, et al.; KHIMICHESKIYE VOLOKNA,	
No 3, May-Jun 84)	56
Low Temperature Synthesis of Polycaproamide Copolymers	
Grafted With Polydimethyl-Aminothylmethacrylate	
(A. P. Khardin (deceased), et al.; KHIMICHESKIYE	
VOLOKNA, No 3, May-Jun 84)	56
Synthesis of Reinforced Composite Threads Based on	
Polymer Mixtures	
(M. V. Tsebrenko; KHIMICHESKIYE VOLOKNA, No 3,	
May-Jun 84)	57
Fire Retardant Cellulosehydrate Fibers	
(A. Ya. Ivanova, et al.; KHIMICHESKIYE VOLOKNA,	
No 3, May-Jun 84)	57
Improved Uniformity of Viscous Textile Fibers Obtained	
by Altering Drying Procedures	
(A. D. Kirillov, et al.; KHIMICHESKIYE VOLOKNA,	
No 3, May-Jun 84)	58
Synthesis of Antimicrobial Chemical Fibers and Fibrous	
Materials Containing Quaternary Ammonium Compounds and Their Utilization	
(V. M. Vaynburg, et al.; KHIMICHESKIYE VOLOKNA,	
No 3 May-Tun 84)	58

Forming Fluorine-Containing Threads From Vinylidene	
Fluoride-Tetrafluoroethylene Copolymer by Dry Method	
(B. S. Vesayte, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	59
Study of Effectiveness of Fire-Resistant Activity of	
Antipyrenes for Fibers of Aromatic Polyamides	
(A. Ya. Ivanova, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	59
Effect of Degree of Polymerization of Polycaproadmide on	
Industrial Grade Thread Strength	
(M. Ya. Gusakov, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	60
Polymer-Carbon Black Interaction in Electrically Conducting	
Fiber-Forming Composites	
(L. Ya. Konovalova, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	60
Effect of Polymer Matrix on Properties of Fibers Obtained	
by Caking Polymer Dispersions	
(A. L. Koldobskiy, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	61
Preparation of Fire-Resistant Infusible Polycaproamide Fiber	
(A. V. Efros, et al.; KHIMICHESKIYE VOLOKNA, No 6,	
Nov-Dec 83)	61
Flammability, Smoke Emission and Heat Resistance of	
Modified Oksalon Fibers	
(V. A. Tarasov, et al.; KHIMICHESKIYE VOLOKNA,	
No 6, Nov-Dec 83)	62
Polymerization of 4MPI in Presence of Modified Ziegler-Natt	
Type Catalysts	
(M. A. Budanova, et al.; PLASTICHESKIYE MASSY,	
No 7, Jul 84)	62
Copolymerization of Oligocarbodimides With Terminal	
Isocyanate Groups With Epoxydiane Resin	
(G. I. Shukurov, et al.; PLASTICHESKIYE MASSY,	
No 7, Jul 84)	63
Effect of Zinc Content on Electric Properties of	
Polyzincorganosiloxanes	
(I. M. Kostylev, et al.; PLASTICHESKIYE MASSY,	20
No 7, Jul 84)	63
Antifrictional Properties of PA-12 Reinforced With Fibrous	
Fillers	
(M. L. Kerber, et al.; PLASTICHESKIYE MASSY, No 7,	63

	Thermomechanical Properties of Radiationally Solidified Oligoesteracrylates	
	(N. V. Lomonosova, Yu. A. Chikin; PLASTICHESKIYE MASSY, No 7, Jul 84)	64
	Adhesian of Passtanlantics to Stool	
	Adhesion of Reactoplastics to Steel (A. D. Sokolov, et al.; PLASTICHESKIYE MASSY,	
	No 7, Jul 84)	64
	Effectiveness of Utilization of Polymer Materials in Agroindustrial Complexes	
	(S. G. Grokhovskiy; PLASTICHESKIYE MASSY, No 7,	
	Jul 84)	65
	Sensitization of Photostructuralization (Photocrosslinking) of Polymers With Selected Organic Azides and Triazenes (A. V. Pochinok, et al.; UKRAINSKIY KHIMICHESKIY	
	ZHURNAL, No 7, Jul 84)	65
	Photosensibilized Crosslinking of High Pressure Polyethylene With 9,10-Phenanthrenquinone	
	(O. V. Shapoval, et al.; UKRAINSKIY KHIMICHESKIY	
	ZHURNAL, No 7, Jul 84)	66
	Effect of Peroxides and Aliphatic Mercaptans on Molecular Weight Distribution of Synthesized Polystyrene (V. I. Mel'nichenko, et al.; UKRAINSKIY KHIMICHESKIY ZHURNAL, No 7, Jul 84)	44
		00
RADIAT	ION CHEMISTRY	
	Natural Radiation Dose Absorbed by Organic Materials From Sedimentary Rocks	
	(I. Ya. Sklyarenko, et al.; DOKLADY AKADEMII NAUK	4.0
	SSSR, No 4, Jun 84)	68
	Thermochemical Characteristics of Uranium Fluoride UF_n Molecules	
	(L. N. Gorokhov, et al.; ZHURNAL FIZICHESKOY KHIMII, No 7, Jul 84)	68
WATER ?	TREATMENT	
	Study of Structure of Precipitates, Forming During	
	Electrocoagulation Purification of Waste Effluent	
	(I. V. Savitskaya, et al.; ZHURNAL PRIKLADNOY	
	KHIMII, No 3, Mar 84)	70
	Purification of Acidic Industrial Effluent With Calcium Carbonate Sludge	
	(S. F. Koren'kova, et al.; VODOSNABZHENIYE I	
	SANITARNAYA TEKHNIKA, No 7, Jul 84)	70

Equipment for Damping Hydraulic Shock	
(E. P. Ashchiyants, R. M. Rafaelyan; VODOSNABZHENIYE	
I SANITARNAYA TEKHNIKA, No 7, Jul 64)	71
Steel Pipes With Internal Cement-Polymer Lining (Z. E. Litinskiy, et al.; VODOSNABZHENIYE I	
SANITARNAYA TEKHNIKA, No 7, Jul 84)	71
Electrochemical Oxidation of 'Roxaphenol H-6' Over	
Platinum Electrodes	
(Z. Gozhka, A. Sokha; ELEKTROKHIMIYA, No 8, Aug 84)	72

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

Adsorption of Hydrogen and Oxygen on Platinum, Electromechan- ically Dispersed on Graphite	
(G. F. Kamyshanova, G. A. Bogdanovskiy; VESTNIK	
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 3, May-Jun 84)	1
Study of Adsorption of Uranium from Carbonate-Containing Solutions by Inorganic Sorbents, Part 8: Thermodynamics of Adsorption of Uranium on Titanium-Containing Sorbents with Disordered Structure	
(B. F. Myasoyedov, A. N. Nuriyev, et al.; RADIOKHIMIYA, No 3, May-Jun 84)	2
Study of Adsorption of Methanol on Zinc-Chromium and Zinc-Chromium-Potassium Catalysts by Thermal Desorption Method (A. A. Plakidkin, L. L. Korobitsyna, et al.; ZHURNAL FIZICHESKOY KHIMII, No 6, Jun 84)	2
New Phenomena in Adsorption of Oxygen Under Unsteady Conditions on Gold Promoted with Silver Atoms (A. V. Kashin, E. Ye. Gutman, et al.; ZHURNAL FIZICHESKOY KHIMII, No 6, Jun 84)	3
Study of Adsorption of Urea on Platinum by Charging Curves Method (Mokhamed Sedik Khusseyn El'-Dik, G. I. Yelfimova, et al.; ZHURNAL FIZICHESKOY KHIMII, No 6, Jun 84)	3
Properties of Carbon Adsorbent Obtained by Thermocatalytic Treatment of Wood (A. N. Kislitsyn, Z. M. Rodionova, et al.;	
GIDROLIZNAYA I LESOKHIMICHESKAYA PROMYSHLENNOST', No 4, May-Jun 84)	4

ANALYTICAL CHEMISTRY

	pectroscopic Determination of Content of Oxygen Isotopes Oxygen-18-Labeled Uranyl	
_	(S. A. Gaziyev, N. A. Gorshkov, et al.; RADIOKHIMIYA,	
	No 3, May-Jun 84)	5
BIOCHEMIST	TRY	
	ervation of Yeast Feed Protein Producers in Lyophilized	
	(T. N. Semushina, M. F. Fateyeva, et al.; GIDROLIZNAYA I LESOKHIMICHESKAYA PROMYSHLENNOST', No 4, May-Jun 84)	6
Yeas	t Autolysate as Amino Acid Source	
	(V. A. Popova, D. I. Ostrovskiy, et al.; GIDROLIZNAYA I LESOKHIMICHESKAYA PROMYSHLENNOST', No 4, May-Jun 84)	6
Cult	ivation of Lipid-Forming Yeasts on Wood Hydrolysates (V. S. Oleshko; GIDROLIZNAYA I LESOKHIMICHESKAYA	
	PROMYSHLENNOST', No 4, May-Jun 84)	7
CATALYSIS		
	tics and Mechanism of Isomerization of N-Hexane on atinum-Zeolite Catalysts	
	(K. V. Topchiyeva, V. A. Dorogochinskaya; VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 3, May-Jun 84)	8
	rmination of Thermodynamic Characteristics of Adsorption Number Hydrocarbon Series on NaX Zeolite by Chromatography (V. L. Keybal, K. D. Shcherbakova; VESTNIK	
	MOSKOVSKOGO UNIVERSITETA: KHIMIYA, NO 3, May-Jun 84)	9
	uence of Hydrazine on Catalytic Decomposition of Hydrogen croxide on Platinum in Acid Solutions	
	(Sedik Khusseyn El'-Dik Mokhamed, G. I. Yelfimova, et al.; VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA,	
	No 3, May-Jun 84)	9
et	cture and Catalytic Properties of Complexes of Poly- hyleneimine and Polytrimethyleneimine with Group VIII	
Me	tal Salts (A. N. Shupik, I. S. Kalashnikova, et al.; ZHURNAL	
	FIZICHESKOY KHIMII, No 6, Jun 84)	10
Stud	y of Interaction of Hydrogen with Low Percent Co/Al ₂ O ₂	
-	(L. V. Babenkova, I. N. Blagoveshchenskaya, et al.;	
	ZHURNAL FIZICHESKOY KHIMII, No 6, Jun 84)	10

Thermodesorption Study of Catalytic Systems, Part 19: Determination of Activation Energy of Desorption of H ₂ O and CO ₂ from Surface of Copper-Containing Catalysts	
(V. N. Gel'man, V. S. Sobolevskiy, et al.; IZVESTIYA	
AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 6,	
Jun 84)	11
Influence of Spinel Formation of Fisher-Tropsch Synthesis in	
Presence of Co-Al ₂ O ₃ Catalysts	
(Khoang Chong'Iyem, A. Yu. Krylova, et al.; IZVESTIYA AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 6, Jun 84)	11
Carbonylation of m-Fluoronitrobenzene in Presence of Selenium-	
Containing Catalysts	
(A. L. Lapidus, S. D. Pirozhkov, et al.; IZVESTIYA	10
AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 6, Jun 84)	12
Catalytic Properties of Ultrasil-Type Zeolites in Conversions of n-Butane	
(N. N. Krupina, A. Z. Dorogochinskiy, et al.;	
NEFTEKHIMIYA, No 3, May-Jun 84)	13
Oxidative Dehydrodimerization of Toluene on Lead-Tin Oxide Catalysts	
(P. G. Firuzi, V. P. Vislovskiy, et al.; NEFTEKHIMIYA,	
No 3, May-Jun 84)	13
Codimerization of Styrene with Ethylene in Presence of	
Catalytic Systems Containing Nickel N, N-Diethyldithiocar-	
bamate with Diethylaluminumchloride	
(A. G. Azizov, D. B. Akhmedov, et al.; NEFTEKHIMIYA,	
No 3, May-Jun 84)	14
Catalytic Pyrolysis of n-Butane	
(V. G. Sokolovskaya, S. V. Adel'son; NEFTEKHIMIYA,	
No 3, May-Jun 84)	14
Activity of Catalysts Based on Polynuclear Iron Complexes in	
Synthesis of Hydrocarbons from CO and H2	
(A. L. Lapidus, M. M. Savel'yev, et al.; NEFTEKHIMIYA,	
No 3, May-Jun 84)	15
Properties of Co Catalysts Applied to Cobalt-Aluminum Spinel	
in Synthesis of Hydrocarbons from CO and H2	
(Khoang Chong Iyem, T. V. Khlebnikova, et al.;	
NEFTEKHIMIYA, No 3, May-Jun 84)	15
Some Specifics of Catalytic Properties of Co-High Silicon	
Zeolites in Fisher-Tropsch Reaction	
(K. F. Kosygina, I. N. Nikiforova, et al.; NEFTEKHIMIYA,	16

Nature of Action of Mo-Mn-Catalytic Epoxidation System	
(N. N. Bayanova, I. G. Fal'kov, et al.; NEFTEKHIMIYA.	
No 3, May-Jun 84)	17
Orbital Resonance and its Possible Role in Catalysis	
(Yu. A. Kolbanovskiy, S. G. Gagarin; KHIMICHESKAYA	
FIZIKA, No 8, Aug 84)	17
Surface Compounds Formed Upon Catalytic Selective Oxidation	
of Propylene and Isobutylene	
(V. A. Matyshak, P. V. Kurman, et al.; KHIMICHESKAYA	
FIZIKA, No 8, Aug 84)	18
Study of Heterogeneous Catalysts Based on Further Fine Structure of X-Ray Absorption Spectra (EXAFS). (Pt+Re)/SiO ₂	
Catalysts	
(D. I. Kochubey, M. A. Kozlov, et al.; KHIMICHESKAYA	
FIZIKA, No 8, Aug 84)	19
Isomerization of Mixtures of Xylenes with Ethylbenzene Over Catalyst IK-78	
(V. N. Brovko, N. R. Bursian, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	19
Sulfur Resistance of Selective Hydrocracking Catalyst Based on Synthetic Erionite	
(V. V. Shipikin, I.N. Tolkacheva, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	20
Adsorption of Formaldehyd in Electrochemically Dispersed Platinum on Graphite	
(G. F. Kamyshanova, G. A. Bogdanovskiy; ZHURNAL	
FIZICHESKOY KHIMII, No 9, Sep 84)	20
Study of Effects on Tin Additives on Acceptor Properties of	
Aluminum-Platinum Catalyst Surface	
(O. A. Kryukova, Ye. V. Lunina, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 9, Sep 84)	21
Dilution Effect on Catalytic Activity of Ziegler-Natt Metalorganic Complexes	
(N. F. Noskova, G. Kh. Azerbayeva, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 9, Sep 84)	21
Distribution of Metals in Skeletal Structure of Iridium- Nickel-Catalysts	
(V. P. Davil'chur, A. D. Semenova, et al.; ZHURNAL	
FIZICHESKON KHIMIL, Mo 8, Aug 84)	22

COAL GASIFICATION

Study of Catalytic Activity of Coke in Process of Producing Reduced Gases for Metallurgy	
(I. G. Zubilin; KOKS I KHIMIYA, No 7, Jul 84)	23
Processing of Coke Gas in Absorber with Plates	
(K. V. Zelinskiy, V. G. Nazarov, et al.; KOKS I	
KHIMIYA, No 7, Jul 84)	23
Separation of Valuable Heterocyclic Compounds from Raw Benzene and Coal Tar	
(S. Z. Tayts, M. I. Zaretskiy, et al.; KOKS I KHIMIYA,	
No 7, Jul 84)	24
Possibility of Decreasing Content of 3,4-Benzpyrene in Coal Pitch	
(Ye. A. Sukhorukova, G. D. Kharlampovich, et al.;	
KOKS I KHIMIYA, No 7, Jul 84)	25
Direct-Flow Absorption Oil Regenerator	
(V. P. Sidogin, V. T. Khomin, et al.; KOKS I KHIMIYA,	
No 7, Jul 84)	25
COMBUSTION	
Heats of Combustion and Formation of Symmetrical Triazine	
Derivatives	
(T. I. Gromova, M. V. Lyubarskiy, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 6, Jun 84)	26
Flammability of Reinforced Plastics Based on Thermoplastics	
(V.N. Vorob'yev, L. V. Bychikhina, et al.;	
PLASTICHESKIYE MASSY, No 8, Aug 84)	26
Fire Resistance of Compositions Based on Diallylisophthalate	
(Ya. I. Mindlin, G. V. Chubarova, et al.;	
PLASTICHESKIYE MASSY, No 8, Aug 84)	. 27
Endothermal and Exothermal Phenomena During Thermodestruction	
of Polyvinyl Fluoride	
(M. K. Asamov, A. A. Yul'chibayev, et al.;	
PLASTICHESKIYE MASSY, No 8, Aug 84)	27
FREE RADICALS	
Formation of Radicals in Adsorption of Certain Heteroatomic	
Compounds on N-Mordenite	
(A. V. Kucherov, A. A. Slinkin, et al.; IZVESTIYA	
AKADEMII NAUK SSSR: SERIYA KHIMICHESKAYA, No 6, Jun 84)	28

- e -

Analysis of EPR Spectrum of Products of Interaction of Dextran with Deuterium Atoms in Frozen Sulfate Solutions (G. V. Abagyan, A. S. Apresyan; ARMYANSKIY	
KHIMICHESKIY ZHURNAL, No 5, May 84)	29
INORGANIC COMPOUNDS	
Study of Solid Phase Interaction of Magnesium and Nickel (V. D. Rusnyak, S. F. Dunayev, et al.; VESTNIK	
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 3, May-Jun 84)	30
Mixed Uranium and Rare Earth Cerium Subgroup Selenides with	
(V. K. Slovyanskikh, N. T. Kuznetsov, et al.; ZHURNAL	
NEORGANICHESKOY KHIMII, No 7, Jul 84)	30
IR Spectroscopic Study of Products of Interaction of	
Lanthanide Atoms with Molecular Chlorine in Argon Matrix	
(N. S. Loktyushina, S. B. Osin, et al.; ZHURNAL	
NEORGANICHESKOY KHIMII, No 7, Jul 84)	31
Mixed Sulfides of NbUS, and TaUS,	
(V. K. Slovyanskikh, N. T. Kuznetsov, et al.;	
ZHURNAL NEORGANICHESKOY KHIMII, No 7, Jul 84)	31
Study of Acoustic Properties of Alloys in Mg-Sn, Mg-Pb Systems	
and Evaluation of Their Compressibility	
(V. M. Glazov, L. M. Pavlova, et al.; ZHURNAL	
FIZICHESKOY KHIMII, No 8, Aug 84)	32
ION EXCHANGE PHENOMENA	
Study of Adsorption Mechanism of Nitroxoaminazo by AV-17	
Anion Exchange Resin	
(G. D. Brykina, Amalesh Chandra, et al.; VESTNIK	
MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 3, May-Jun 84)	33
NITROGEN COMPOUNDS	
Thermal Decomposition of 1,3,5-Trinitro-1,3,5-Triazacyclohexane	
in Solid State	
(Yu. H. Burov, G. M. Nazin; KHIMICHESKAYA FIZIKA,	
No 8, Aug 84)	34
ORGANOMETALLIC COMPOUNDS	
Predesigned Structuring and Synthesis of Organo-Tin Compounds	
Having Anti-Microbial Properties	
(L.A. Tyurina, G. V. Kuznetsova, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 7, Jul 84)	35

ORGANOPHOSPHORUS COMPOUNDS

Interaction of Dipropyl and Diphenyliodophosphines with Ethylene Oxide	
(N. D. Gomelya, A. G. Matyusha, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 6, Jun 84)	36
Chemical Properties of Tetraalkyldiamidoiodophosphites and	
Tetraalkyldiamidoiodothiophosphates	
(I. Ye. Mitel'man, Zh. K. Gorbatenko, et al.;	
ZHURNAL OBSHCHEY KHIMII, No 6, Jun 84)	37
Study of Structure of O,O-Dialkyl Esters of S-(1-N-Acetamido-	
2,2,2-Trichloroethyl)Monothio- and- Dithiophosphoric Acids	
by Spectroscopy	
(R. G. Islamov, M. G. Zimin, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 6, Jun 84)	37
Electrochemical Synthesis of Amidophosphites	
(Ye. V. Nikitin, A. S. Romakhin, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 6, Jun 84)	38
Photoelectron Spectra and Electron Structure of Organophos-	
phorus Compounds, Part 4: Energy and Composition of	
Upper Occupied Orbitals of PIV Derivatives	
(V. V. Zverev; ZHURNAL OBSHCHEY KHIMII, No 6, Jun 84)	38
Interaction of Chloroacetylenephosphonates with Primary Phosphines	
(A. A. Leonov, O.I. Tuzhikov, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 6, Jun 84)	39
Interaction of 0,0-Dimethyl-S-Trimethylsilydithiophosphate	
with Methylphenylcarbodiimide	
(G. A. Kutyrev, A. V. Lygin, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 6, Jun 84)	39
Stable Quasiphosphonium Salts in Reactions of Allenylphosphon-	
ates with Sulfophenylchlorides	
(N. G. Khusainova, L. V. Naumova, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 6, Jun 84)	40
N.N-Bis(Trimethylsily1)Amino-N'-(Di-Tert-Butylphosphino)	
Iminophosphine	
(L. N. Markovskiy, V. D. Romanenko, et al.; ZHURNAL	4.0
OBSHCHEY KHIMII, No 6, Jun 84)	40
Interaction of Di-p-Bromophenyl Ester of 2-Phenylethinylphos-	
phonous Acid with C-p-Fluorophenyl-N-Phenylnitrylimine	
(A. S. Panevin, Yu. G. Trishin, et al.; ZHURNAL	4.5
OBSHCHEY KHIMII, No 6, Jun 84)	41

Reaction of Sulturic Acid with Organophosphorus Compounds	
Containing beta-Chlorostyryl Groups	
(G. K. Fedorova, L. G. Anan'yeva, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 7, Jul 84)	42
Reaction of Acetylphosphonates with Gem-Substituted Vinyl	
Phosphonates	
(V.A. Al'fonsov, G. U. Zamaletdinova, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 7, Jul 84)	42
Reactions of 2-Phenyl-5-Methyl-1,2,3-Diazophosphole with	
2-Diazopropane	
(A. V. Il'yasov, A.N. Chernov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 7, Jul 84)	45
Observation () and (•
Catalytic and Thermal Decomposition of 2-Diazo-1,3-	
Diphenylpropane-1,3-Dione in Dimethylphosphorous and	
Diethylthiophosphorous Acids	
(B.A. Arbuzov, A.M. Polozov, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 7, Jul 84)	43
PESTICIDES	
Fungicidal Properties of Complex Lactam Compounds with Heavy Metal Salts	
(S. S. Kukalneko, Ye. I. Andreyeva, et al.; KHIMIYA	
V SEL'SKOM KHUZYAYSTVE, No 9, Sep 84)	44
Herbicides on Tomato Plantings	
(P. S. Zhukova; KHIMIYA V SEL'SKOM KHOZYAYSTVE, No 9,	
Sep 84)	44
PETROLEUM PROCESSING TECHNOLOGY	
Increasing Effectiveness of Operation of Catalutic Reference	
Increasing Effectiveness of Operation of Catalytic Reforming Installation	
(V. V. Shipikin, V. P. Pushkarev, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	46
Preparation of Raw Materials for Reforming and Pyrolysis	
(A. F. Akhmetov, M. A. Tanatarov, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	46
Production of White Compressor Oil Type NKM-40 from Western	
Siberian Petroleum	
(Ye. N. Marcheva, V. A. Potanina, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	47
Influence of Day Material Quality on Catalutia Duraling to Day	
Influence of Raw Material Quality on Catalytic Pyrolysis Results	
(G. P. Kreynina, L. A. Izbyakova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	4 =
IDAMOLOGIA TOFLIV I MASEL, NO /, JUL 64)	47

Influence of Carboxylation Conditions on Composition of	
Alkysalicylic Acids	
(N. L. Voloshin, Yu. T. Gordash, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	41
Thiocarbamide Derivatives of 2,6-Di-Tert-Butylphenol Reactive Fuel Stabilizers	
(I. A. Golubeva, V. S. Shaulov, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	49
Effectiveness of Corrosion Inhibitors in Recycled Water Supply Systems	
(V. F. Sorochenko, A. P. Shut'ko, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	49
Coking of Reforming Catalysts in Industrial Installations	
(Yu. A. Skipin, A. P. Fedorov; KHIMIYA I	-
TEKHNOLOGIYA TOPLIV I MASEL, No 7, Jul 84)	50
Composition of Raffinates of Adsorption Refined Hydraulic Oil Bases	
(N. I. Alekhina, S. Z. Levinson, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	50
Low Temperature Viscosity of Domestic Motor Oils by New	
Classification SAE J 300e	
(V. N. Bauman, A.V. Kozhekin, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	51
p-Chlorothiobenzamides as Lube Oil Additives	
(A.B. Kuliyev, M.M. Kurbanov, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	51
Obtaining Light Fuels by Hydrocracking Bituminous High Sulfur Crudes	
(Ya.R. Katsobashvili, G.A. Teplyakova; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	52
Filterability of Oils for Hydraulic Systems in Industrial Equipment	
(A.A. Chesnokov, N.A. Antipina, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	52
Stability of Regenerated Oil I-20A Against Oxidation	
(M.I. Fal'kovich, N.N.Popova, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	53
Features of Oxidation of Fuels in Contact with Rocks	
(V.S. Azev, L.N. Kuznetsova; KHIMIYA I TEKNOLOGIYA	
TOPLIV I MASEL, No 8, Aug 84)	53

POLYMERS AND POLYMERIZATION

	Liquid Membrane Separation of Low-Molecular-weight Mass Chiofo-	
	Organic Compounds from Polymer Substances in Wastes from	
	Production of Chloroprene from Butadiene	
	(G.S. Grigoryan, E.M. Asatryan, et al.; ARMYANSKIY	
	KHIMICHESKIY ZHURNAL, No 5, May 84)	54
	KRIMICHESKII ENGRALE, NO 3, May 04/1	34
	Copolymerization of Styrene with Divinylbenzene in Initial	
	Stages	
	(R.F. Markovskaya, Ye.S. Alekseyeva, et al.;	
	PLASTICHESKIYE MASSY, No 8, Aug 84)	55
	Water-Dispersed Polymerization of Styrene in Presence of	
	Calcium Carbonate and Surfactants	
	(A.A. Ivanov, A.V. Pebalk; et al.; PLASTICHESKIYE MASSY,	
	No 8, Aug 84)	55
	NO 0, Aug 04/	33
	Polymerization of MMA in Presence of Sulfur- and Silicon-	
	Containing Compounds	
	(S.D. Stavrova, I.P. Chikhacheva, et al.; PLASTICHESKIYE	
	MASSY, No B, Aug 84)	56
	mass, no o, nug o4)	30
	Effect of Structure of ABS-M Copolymers on Properties	
	(L.F. Dokukina, K.A. Vylegzhanina, et al.;	
	PLASTICHESKIYE MASSY, No 8, Aug 84)	56
	PLASITCHESKITE MASSI, NO 0, Aug 04)	20
	Effect of Plasticizers on Thermostability of PVC-Composites	
	(N.S. Gryzhenkova, V.K. Markina, et al.;	
	PLASTICHESKIYE MASSY, No 8, Aug 84)	57
	PLASTICHESKITE MASSI, NO 0, AUG 04/	31
	Effect of Activated Oxygen on Erosion of Polymer Films	
	(M.A. Bagirov, A.M. Gorbunov, et al.; PLASTICHESKIYE	
	MASSY, No 8, Aug 84)	57
	mast, no o, aug o4)	31
	Polymer Coatings, Hardened by Radiation	
	(Z.G. Zagorskaya, Ye. V. Maslova, et al.; PLASTICHESKIYE	
	MASSY, No 8, Aug 84)	58
	mast, no o, Aug ouj	20
	Increasing Work Capacity of Stressed Parts of Thermoplastics	
	by Preliminary Pressure Treatment	
	(V.P. Yartsev, Ye. V. Minkin; PLASTICHESKIYE MASSY,	
	No 8, Aug 84)	58
RADI	ATION CHEMISTRY	
	Membrane Methods of Separating Radioactive Noble Gases, Part 1:	
	Influence of Irradiation on Permeability and Selectivity of	
	Separation of Noble Gases by Asymmetrical Polymer Membranes	
	(V. N. Nikonov, Yu. N. Kazankin, et al.; RADIOKHIMIYA.	
	No 3, May-Jun 84)	59

	Membrane Methods of Separating Radioactive Noble Gases: Part 2: Studies of Diffusion and Permeability on Inert Gases and Components of Air Through Films Based on Polydimethylsiloxane (I. N. Bekman, Ye. I. Bozhenko, et al.; RADIOKHIMIYA,	
	No 3, May-Jun 84)	60
RUBBE	R AND ELASTOMERS	
	Kinetic Regularities of Inhibited Oxidation of Polyisoprene Rubber	
	(G. F. Bebikh, Vl. P. Kleymenichev, et al.; VESTNIK MOSKOVSKOGO UNIVERSITETA: KHIMIYA, No 3, May-Jun 84)	61
	Vulcanization of Fluororubbers with Peroxides Combined with Triallylisocyanurate	
	(G. A. Sankina, N.P. Smirnova, et al.; KAUCHUK I	
	REZINA, No 9, Sep 84)	62
	Composition Selection for Condensation of Resins Used in	
	Geophysical Instruments for Extremely Deep Petroleum and Gas Wells	
	(R. Sh. Frenkel', A. D. Zalesskaya, et al.; KAUCHUK I	
	REZINA, No 9, Sep 84)	62
	Nature of Side Force Generated During Rotation of Inclined Automobile Wheels	
	(V. I. Novopol'skiy, A. A. Baydukov; KAUCHUK I REZINA,	
	No 9, Sep 84)	63
WATER	TREATMENT	
	Decontamination of Effluents from Alumina-Silica Cataylst Production	
	(M. P. Yunusov, T. Azimova, et al.; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 8, Aug 84)	64
	Leaching Phenol from Waste Effluents by Adsorption	
	(D.B. Gospodinova, N.S. Nikolov, et al.; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 4, Jul-Aug 84)	64
	Leaching Fluorine from Subterranean Water by Electrocoagulation	
	(V.A. Matveyevich, R.V. Drondina, et al.; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 4, Jul-Aug 84)	65
	Effect of Montmorillonite on Separation of Microorganisms from Water by Coagulation	
	(L. I. Globa, G.N. Nikovskaya; KHIMIYA I TEKHNOLOGIYA	
	VODY, No 4, Jul-Aug 84)	65

Electric Power Plants on Oxidized Charcoals and Ion Exchange Resins	
(L. A. Kul'skiy, A. M. Voloshinova, et al.; KHIMIYA	
I TEKHNOLOGIYA VODY, No 4, Jul-Aug 84)	66
1 TERHNOLOGITA VODI, NO 4, Jul-Aug 64)	00
Intensification o. Biocatalytic Treatment of Waste Water by Adsorption	
(A.M. Koganovskiy, V.M. Udod, et al.; KHIMIYA I	
TEKHNOLOGIYA VODY, No 4, Jul-Aug 84)	66
Flotation Purification of Natural and Waste Waters from DDT (L.D. Skrylev, A.G. Nevinskiy, et al.; KHIMIYA I	
TEXHNOLOGIYA VODY, No 4, Jul-Aug 84)	67
Treating Sewage Waters from Warehouses and Depots Storing Chemicals for Plant Protection	
(M.A. Shevchenko, P.V. Marchenko, et al.; KHIMIYA I	
TEKHNOLOGIYA VODY, No 4, Jul-Aug 84)	67
Energy Expenditure in Water Desalination Technological Processes	
(M. V. Kolodin; VODOSNABZHENIYE I SANITARNAYA TEKHNIKA,	
No 8, Aug 84)	68
Purification of Effluent at Metal Products Plant	
(V. P. Malkin; VODOSNABZHENIYE I SANITARNAYA TEKHNIKA,	
No 8, Aug 84)	68
WOOD CHEMISTRY	
Prospects for Use of Cellulose-Paper Industry Wastes in Production of Furfural	
(K. A. Travina, I. B. Shvetsova, et al.; GIDROLIZNAYA	
I LESOKHIMI CHESKAYA PROMYSHLENNOST', No 4, May-Jun 84)	69
MISCELLANEOUS	
Study of Energetics and Mechanism of Sonochemical Reactions.	
Hydrogen/Hydrogen Peroxide Yield Ratio in Various Aqueous	
Systems	
(M. A. Margulis, Yu. T. Didenko; ZHURNAL FIZICHESKOY	-
KHIMII, No 6, Jun 84)	70

USSR REPORT

CONTENTS

ALKALOIDS

	Integral Intensities of IR Bands of Aromatic Ring Skeletal Vibrations in 1480-1630 cm ⁻¹ Range and UV Spectra of Aporphine Alkaloids	
	(E. L. Kristallovich, M. R. Yagudayev, et al.; KHIMIYA PRIRODNYKH SOYEDINENIY, No 4, Jul-Aug 84)	1
	Structure of Stenanzidinine	
	(K. Samikov, R. Shakirov, et al.; KHIMIYA PRIRODNYKH SOYEDINENIY, No 4, Jul-Aug 84)	1
	Some Derivatives of Papaverine	
	(V. A. Degtyarev, Yu. D. Sadykov, et al.; KHIMIYA	2
ANAL	YTICAL CHEMISTRY	
	Piezoelectric Determination Method for Impurities in Liquids (V. M. Bel'kov, L. M. Malinovskaya; ZHURNAL	
	ANALITICHESKOY KHIMII, No 9, Sep 84)	3
	Extraction-Photometric Determination of Potassium in Drilling Water	
	(A. L. Shabanov, G. A. Babayev, et al.; ZHURNAL ANALITICHESKOY KHIMII, No 9, Sep 84)	3
	Atomic Emission Spectrochemical Analysis of Ultrapure Germanium	
	With Preconcentration of Impurities Based on Vapor Phase	
	Autoclave Sample Decomposition in Electrode (V. G. Pimenov, A. N. Pronchatov, et al.; ZHURNAL	
	ANALITICHESKOY KHIMII, No 9, Sep 84)	14

	Use of Kizhner's Reaction for Chromatographic Determination of C ₃ -C ₁ Carbonyl Substances in Air of Industrial Sites	
	4 (B. V. Stolyarov, A. G. Nagimullina, et al.; ZHURNAL ANALITICHESKOY KHIMII, No 9, Sep 84)	14
	Modified Thermoionic Detector in Which Carbon Monoxide Is Used as Flammable Agent	
	(G. V. Tsitsishvili, V. G. Berezkin,, et al.; ZHURNAL	
	ANALITICHESKOY KHIMII, No 9, Sep 84)	5
	Polarographic Studies on Rongalite Decomposition in Aqueous Solutions	
	(S. V. Makarov, Yu. V. Polenov, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 10, Oct 84)	5
BIO	CHEMISTRY	
	Natural Peptides and Their Analogs, Part 32: Synthesis and	
	Properties of Retro-Leucine-5-Enkephaline	
	(Yu. P. Shvachkin, A. A. Shishkina, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 84)	7
ሮ ለሞ/	ALYSIS	
CHI	ALI 515	
	Catalytic Activity of Nickel-Chromium Catalyst in Dehydrogenation of Isopropyl Alcohol	
	(Ye. N. Yermolenko, B. V. Yerofeyev, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 4.	
	Jul-Aug 84)	8
	Reforming Benzine Fraction on Polymetallic Catalyst	
	(G. M. Sen'kov, V. P. Pushkarev, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 4,	
	Jul-Aug 84)	8
	Study of Carbon Catalysts by Methods of X-Ray Photoelectron Spectroscopy and Thermal Analysis	
	(A. A. Larina, I. A. Tarkovskaya, et al.; TEORETICHESKAYA	
	I EKSPERIMENTAL'NAYA KHIMIYA, No 9, Jul-Aug 84)	9
	Oxidation of Ammonia Over Nonplatinum Catalyst	
	(T. I. Nazarova, G. N. Zavidkova, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 9, Sep 84)	9
	Catalyst Complex for Demercaptanization of Light Hydrocarbon	
	Crude (V. A. Fomin, T. I. Komleva, et al.; hHIMIYA I	
	TEXHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	10
	Influence of Reforming Regimen on Catalyst Deactivation Rate	
	(A. P. Fedorov, Ye. A. Shkuratova, et al.; KHIMIYA I	
	TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	10

Increase of Effectiveness of Reforming Over AP-56 Catalyst	
(V. B. Chizhov, G. L. Rabinovich, et al.; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	1:
Spheroidal Vanadium Catalysts in Processing Dust-Laden High-SO ₂ Gas	
(A. M. Larionov, T. S. Petukhova, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 8, Aug 84)	11
Dehydrogenation of p-Diethylbenzene: Comparative Assessment of Catalysts	
(V. I. Rozhkov, N. N. Lebedev, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 8, Aug 84)	12
Interphase Catalysis in Alkyne and Diene Synthesis (T. M. Guseynova, M. A. Aleskerov; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 8, Aug 84)	12
COMBUSTION	
Branching Reaction Resulting in Self-Ignition of Rich Methane Oxygen Mixtures	
(M. P. Mulyava, G. V. Shchemelev, et al.; TEORETICHESKAYA I EKSPERIMENTAL'NAYA KHIMIYA, No 4, Jul-Aug 84)	13
out-Aug 64/	13
FERTILIZERS	
Production Intensification of 10-34-0 Brand Complex Liquid Fertilizers	
(V. N. Kochetkov, V. M. Yankin, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 9, Sep 84)	14
FOOD TECHNOLOGY	
Low Temperature Transesterification Using Biocatalysts	
(Z. Kh. Kadyrova, M.M. Rakhimov, et al.; UZBEKSKIY	
KHIMICHESKIY ZHURNAL, No 4, Jul-Aug 84)	15
Industrial Trial of Production Method for Grape Juice Using H-Cationization in Electromagnetic Field	
(N. U. Rizayev, A. M. Sadykov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 4, Jul-Aug 84)	15
FREE RADICALS	
Free Radical Chlorination of Acetals and Orthoethers	
(L. Z. Rol'nik, Ye. V. Pastushenko, et al.; ZHURNAL ORGANICHESKOY KHIMIL No. 8, Aug. 84)	16
Unuantunganut butti, mi (). Alle the lacases as a second as a seco	4.57

INORGANIC COMPOUNDS

	Semiconducting Films With As Se Composition	
	(N. V. Larin, A. I. Yeremin, et al.; POVERKHNOST': FIZIKA, KHIMIYA, MEKHANIKA, No 9, Sep 84)	17
	Thin Amorphous SiC:Si Films (L. P. Vakhmyanin, O. A. Matveyev, et al.; POVERKHNOST': FIZIKA, KHIMIYA, MEKHANIKA, No 9, Sep 84)	17
	Phase Composition and Properties of Complex Ni-Co-M-O Oxides (E. L. Markina, V. Ye. Polishchuk; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA, No 8, Aug 84)	18
	Phase Diagram of Sodium-Potassium System at High Pressures (V. Z. Mordkovich, V. V. Avdeyev, et al.; ZHURNAL	
	OBSHCHEY KHIMII, No 8, Aug 84)	19
	Synthesis of Reagent-Grade Stannous Bromide From Elements (G. G. Gospodinov; ZHURNAL NEORGANICHESKOY KHIMII, No 10, Oct 84).	19
	Reaction of Boron-Containing Intermetallic Compounds With Hydrogen	
	(K. N. Semenenko, G. V. Kalinnikov, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 10, Oct 84)	20
	Monocrystals of Solid Tl _{2-x} Cd _x S and Cd _{1-x} Tl _x S (x < 0.01) Solutions	
	(M. M. Asadov; ZHURNAL NEORGANICHESKOY KHIMII, No 10, Oct 84)	20
	CdSe-La ₂ Se ₃ System	
	(O. M. Aliyev, A. B. Agayev, et al.; ZHURNAL NEORGANICHESKOY KHIMII, No 10, Oct 84)	21
RGAI	NOMETALLIC COMPOUNDS	
	Electrochemical Synthesis of Dicarbollyl Derivatives of Cobalt and Nickel	
	(A. A. Erdman, Z. P. Zubreychuk, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 4, Jul-Aug 84)	22
		22
	Complex Formation of Niobium Pentachloride With Oxygen- Containing Donors in Organic Solvents	
	(L. V. Kucheruk, I. Ye. Paleyeva, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 84)	22

ORGANOPHOSPHORUS COMPOUNDS

Reaction of Esters of Halogenated and Dihalogenated Nitroacetic	
Acids With Triphenylphosphine	
(I. V. Martynov, L. V. Postnova, et al.; ZHURNAL ORGANICHESKOY KHIMII, No 8, Aug 84)	24
ORGANICHESKOI KHIMII, NO O, AUG 04/	24
Study of Reaction of 2-Monoanyl 1,3-Diphenylpropanetrione With Trimethylphosphite	
(N. A. Polezhayeva, A. V. Il'Yasov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 8, Aug 84)	24
Conformation of 1,3,2,5-Dioxasilaphosphorinanes With Tetra- Coordinated Phosphorus Atom	
(I. I. Patsanovskiy, E. A. Ishmayeva, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 8, Aug 84)	25
Synthesis and Structure of Octahedral Complexes of Halogenides	
of Tin, Tetrachlorides of Germanium, Titanium and Zirconium With Dimethylphosphonous Acid	
(A. A. Muratova, E. G. Yarkova, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 8, Aug 84)	25
Reactions of Complete Esters of Hypophosphorous Acid and	
Phenylphosphonous Acids With Azomethines	
(G. V. Romanov, R. Ya. Nazmutdinov, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 8, Aug 84)	26
Phosphorotropic Tautomeric Migrations of Phosphoraniline Group in Pentade N=C-N=C-N	
(V. V. Negrebetskiy, V. I. Kal'chenko, et al.; ZHURNAL	
OBSHCHEY KHIMII, No 8, Aug 84)	26
Study of Complex Formation of Vanadium Oxotrichloride and	
Tetrachloride With Organophosphorus Compounds by EPR and IR Spectroscopy	
(G. N. Koshkina, A. V. Il'yasov, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 8, Aug 84)	27
Synthesis and Study of Phosphonium-Containing Chalcones	
(M. I. Shevchuk, O. M. Bukachuk, et al.; ZHURNAL OBSHCHEY	-
KHIMII, No 8, Aug 84)	27
Phosphorylation of Triamidoimidophosphates	
(A. P. Marchenko, G. N. Koydan, et al.; ZHURNAL OBSHCHEY	
KHIMII, No 8, Aug 84)	28
Brucine in Asymmetric Synthesis of Esters of Dithiophosphonous	
and Dithiophosphonic Acids	
(M. N. Dimukhametov, I. A. Nuretdinov; ZHURNAL OBSHCHEY	00
KHIMII, No 8, Aug 84)	28

Reactions of Cyclic and Acyclic Derivatives of Phosphorous Acid With 1-Morpholino-2- Methyl-1-Propene	
(V. V. Ovchinnikov, S. V. Cherezov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 84)	29
Reduction of Thioesters of Trivalent Phosphorus Acids With	
Lithium Aluminum Hydride Under Conditions of Interphase Catalysis	
(O. G. Sinyashin, I. Yu. Gorshunov, et al.; ZHURNAL OBSHCHEY KHIMII, No 8, Aug 84)	29
PESTICIDES	
Synthesis and Pesticide Activity of Certain Aminoderivatives of Terpenoids	
(I. I. Bardyshev, N. G. Kozlov, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 4, Jul-Aug 84)	30
PETROLEUM PROCESSING TECHNOLOGY	
Effect of Polymer Dopes on Aerosol-Formation of Oils	
(V. N. Lapshin, G. I. Shor, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	31
Thermal Stability and Protection of Corrosion Inhibitors for Motor Oils	
(A. B. Englin, A. V. Kozhekin, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	31
Products of Hydrocracking of Vacuum Distillates as Bases for Motor Oils	
(I. A. L'vov, S. A. Konakova, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	32
Laboratory Assay of Corrosion Aggressiveness of Motor Oils	
(I. A. Morozova, S. V. Aved'yan, et al.; KHIMIYA I TEKHNOLOGIYA TOPLIV I MASEL, No 9, Sep 84)	32
Synthesis of Higher Normal 2-Alkanols	
(G. A. Stepanova, V. S. Markevich, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 9, Sep 84)	33
POLYMERS AND POLYMERIZATION	
Book: Polymer Mixtures	
(Valeriy Nikolayevich Kuleznev; SMESI POLIMEROV (NOVOYE V ZHIZNI, NAUKE, TEKHNIKE: SERIYA KHIMIYA) No 8, Aug 84)	34
Fluorine-Containing Polyarylates	
(V. V. Korshak, T. M. Kameneva, et al.; DOKLADY AKADEMII NAUK UKRAINSKOY SSR, SERIYA B: GEOLOGICHESKIYE,	
KHIMICHESKIYE I BIOLOGICHESKIYE NAUKI, No 8, Aug 84)	37

Thermodynamics of Polymer Melts With Fillers	
(Yu. S. Lipatov, V. V. Shifrin, et al.; DOKLADY AKADEMII	
NAUK UKRAINSKOY SSR, SERIYA B: GEOLOGICHESKIYE,	
KHIMICHESKIYE I BIOLOGICHESKIYE NAUKI, No 8, Aug 84)	3
Radiation-Chemical Polymerization of Epichlorophydrin in	
Presence of Initiators	
(A. P. Meleshevich, A. A. Kozlov, et al.; TEORETICHESKAYA I EKSPERIMENTAL'NAYA KHIMIYA, No 4, Jul-Aug 84)	3
Some Characteristics of Polymerization of Aminoalkylmethacrylates	
(D. A. Topchiyev, R. Ruziyev, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 4, Jul-Aug 84)	3
Anionic Polymerization of Vinyl Acrylate	
(Ye. M. Pokrovskaya, N. V. Komarov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
TEKHNOLOGIYA, No 8, Aug 84)	39
Synthesis of Diastereomeric 3-Methyl-4-N-Diethylamino-2-Butyl Esters of para-Isobutoxybenzoic Acid	
(S. A. Minasyan, V. M. Nazaryan, et al.; ARMYANSKIY	
KHIMICHESKIY ZHURNAL, No 7, Jul 84)	40
Spontaneous Polymerization Occurring During Reaction of	
Epibromohydrine With N,N'-Diphenylguanidine	
(F. T. Soipov, I. I. Ismailov, et al.; UZBEKSKIY KHIMICHESKIY ZHURNAL, No 4, Jul-Aug 84)	40
Hardening of Epoxy Resin ED-20 Exposed to Ultra-Violet Irradiation	
(M. L. Yeritsyan, E. P. Safaryan, et al.; ARMYANSKIY	
KHIMICHESKIY ZHURNAL, No 7, Jul 84)	43
Organic Semiconductors and Metals: Production and Properties of Polyacetylene Film	
(A. A. Matnishyan, V. M. Kobryanskiy; ARMYANSKIY	
KHINICHESKIY ZHURNAL, No 7, Jul 84)	41
Utilization of Hydrogen Chloride in Production of Tetra- ethoxy: ilane	
(B. P. Krasnov, A. A. Gezalov, et al.; KHIMICHESKAYA	42
PROMYSHLENNOST', No 9, Sep 84)	42
Utilization of Hydrogen Chloride in Production of Organochloro- silanes	
(V. I. Andreyev, N. V. Marinova, et al.; KHIMICHESKAYA	
PROMYSHLENNOST', No 9, Sep 84)	42
Surface Modification of Phosphorocarbon Fibers by Epoxy Oligomers	
(I. N. Yermolenko, V. I. Dubkova; IZVESTIYA AKADEMII	h3

Protection of Synthetic and Biological Polymers From Destruction With Orthobenzoquinone Aminoderivatives	
(P. A. Matusevich; IZVESTIYA AKADEMII NAUK BSSR: SERIYA	
KHIMICHESKIKH NAUK, No 4, Jul-Aug 84)	43
Influence of Thickness on Structural-Filtrational and	
Deformation-Strength Characteristics of Microporous Capron Membranes	
(V. A. Artamonov, T. A. Korshunova, et al.; IZVESTIYA AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 4, Jul-Aug 84)	1, 1,
RADIATION CHEMISTRY	
Study of Fractionation of Calcium Isotopes in K-Ca Radiological Determination of Age	
(A. I. Kostoyanov; RADIOKHIMIYA, No 4, Jul-Aug 84)	45
Yttrium-90 Generator With High Radionuclide Purity	
(A. B. Malinin, L. N. Kurchatova, et al.; RADIOKHIMIYA, No 4, Jul-Aug 84)	45
Results of Determination of Iodine-129 in Heat Transfer Medium and Wastes of Power Reactor	
(Yu. V. Kuznetsov, S. P. Rosyanov, et al.; RADIOKHIMIYA, No 4, Jul-Aug 84)	46
Extraction Generator for Rhodium-103M and Rhodium-106 (Ban Chun Se, B. Z. Iofa; RADIOKHIMIYA, No 4, Jul-Aug 84)	46
Quasirelativistic Study of Electron Structure of Uranium Tetrafluoride	
(I. A. Topol', B. I. Zhilinskiy; TEORETICHESKAYA I EKSPERIMENTAL'NAYA KHIMIYA, No 4, Jul-Aug 84)	47
WATER TREATMENT	
Gas Evaporators for Thermal Concentration of Mineralized	
Effluents	
(Ye. N. Bukharkin; KHIMICHESKAYA PROMYSHLENNOST', No 9, Sep 84)	48
Additional Treatment of Effluents on Aerated Filters	
(A. G. Kirichenko, Ye. P. Kolesnik, et al.; KHIMICHESKAYA PROMYSHLENNOST', No 9, Sep 84)	48
New Reagent for Preliminary Purification of Effluents	
(N. A. Mel'nik; GIDROLIZNAYA I LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, 1984)	49
Utilization of Thermally Stable Polymer Pipes in Sanitation- Technical Systems	
(V. V. Verstov, V. V. Dodusenko, et al.; VODOSNABZHENIYE	
I SANITARNAYA TEKHNIKA NO O Sep 84)	ho

	Use of Effluents After Additional Purification in Technical Water Supply for Thermal Energy Plant	
	(V. I. Storonskiy, B. V. Ferendovich; VODOSNABZHENIYE	
	I SANITARNAYA TEKHNIKA, No 9, Sep 84)	50
	Metrological Assessment of Methods of Analyzing Effluents	
	(Z. K. Kuptsova, V. A. Filimonova, et al.; GIDROLIZNAYA I LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, 1984)	50
	Intensification of Coagulation Processes for Purification of Effluent With Water Soluble Polyelectrolyte KO-3	
	(N. A. Khabibullina, I. K. Satayev, et al.; UZBEKSKIY	-
	KHIMICHESKIY ZHURNAL, No 4, Jul-Aug 84)	51
WOOD	CHEMISTRY	
	Production of Furfural by Two-Phase Hydrolysis of Deciduous Wood Pulp With Use of Monocalcium Phosphate	
	(V. I. Kolomeyets, P. I. Samsonov, et al.; GIDROLIZNAYA	
	I LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, 1984)	52
	Microflora of Biooxidation Apparatus of Hydrolysis Plants	
	(T. N. Semushina, L. A. Gusarova, et al.; GIDROLIZNAYA	
	I LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, 1984)	52
	Study of Identification of Microorganisms Isolated From	
	Biooxidizers of Local Purification Installations of	
	Bobruysk Hydrolysis Plant	
	(M. S. Idel'chik, L. I. Chernyayeva, et al.; GIDROLIZNAYA	
	I LESOKHIMICHESKAYA PROMYSHLENNOST', No 6, 1984)	53
MISCE	ILLANEOUS	
	Behavior of pH of Solutions of Some Electrolytes Exposed to Rotating Magnetic Field	
	(L. V. Khazhakyan, I. Z. Bokhosyan, et al.; ARMYANSKIY	
	KHIMICHESKIY ZHURNAL, No 7, Jul 84)	54

USSR REPORT CHEMISTRY

CONTENTS

ADSORPTION

Study of Nature of Adsorption Centers in Irradiated	
Zeolite by Electron Paramagnetic Resonance Method	
(S. Ye. Yermatov, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 5, May 84)	1
Influence of Gamma Radiation on Adsorption Properties of	
Rare Earth Element and Yttrium Oxides	
(S. Ye. Yermatov, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 5, May 84)	1
Influence of Irradiation With Charged Particles on	
Adsorption Properties of Rare Earth Element Oxides	
(S. Ye. Yermatov, T. Tuseyev; ZHURNAL FIZICHESKOY	
KHIMII, No 5, May 84)	2
Specific Response to Modification by Organic Molecules	
in Adsorption and Catalysis	
(N. P. Karzhavina, Yu. S. Mardashev; ZHURNAL	
FIZICHESKOY KHIMII, No 4, Apr 84)	2
Use of Certain Inorganic Salts as Adsorbents for	
Gas Chromatography	
(K. V. Yegorova, et al.; IZVESTIYA VYSSHIKH	
UCHEBNYKH ZAVEDENIY: KHIMIYA 1 KHIMICHESKAYA	
TEKHNOLOGIYA, No 6, Jun 84)	3
Adsorption of Fluoride Ions From Aqueous Solution by	
KU-2 Cationite in Al-Form	
(Z. A. Samchenko, I. T. Goronovskiy; DOKLADY	
AKADEMII NAUK UKRAINSKOY SSR, No 6, Jun 84)	3

ALKALOIDS

	Results of Study of Metabolism and Biosynthesis of Anabasis Aphylla L. Alkaloids (L. K. Klyshev; IZVESTIYA AKADEMII NAUK	
	KAZAKHSKOY SSR: SERIYA KHIMICPESKAYA, No 4, Jul-Aug 84)	5
	Nuclear Magnetic Resonance Study of Alkaloids, Part 6: Comparison of Stereochemistry of Pseudokopsinine and	
	14, 15-Dihydrovindolinine According to C-Nuclear	
	Magnetic Resonance Spectra	
	(M. R. Yagudayev; KHIMIYA PRIORIDNYKH SOYEDINENIY, No 3, May-Jun 84)	6
	Ionization Constants of Some Alkaloids Used in Medicine	
	(M. Ye. Perel'son, et al.; KHIMIYA PRIRODNYKH	
	SOYEDINENIY, No 3, May-Jun 84)	6
	Nuclear Magnetic Resonance Study of Alkaloids, Part 7:	
	13C Nuclear Magnetic Resonance Spectra and Structure	
	of 'Kopsanone' and Kopsinilame	
	(M. R. Yagudayev; KHIMIYA PRIRODNYKH SOYEDINENIY,	
	No 3, May-Jun 84)	7
	Method of Quantitative Determination of Adlumine in	
	Corydalis Sempervirens and Substances	
	(B. A. Krivut, et al.; KHIMIYA PRIRODNYKH SOYEDINENIY, No 3, May-Jun 84)	7
ANAL	YTICAL CHEMISTRY	
	Content of HCN in Pyrolysis Gases of Composite Materials	
	Reinforced With Polyacrylonitrile-Containing Fibers (L. Panova, et al.; IZVESTIYA AKADEMII NAUK	
	ESTONSKOY SSR: KHIMIYA, No 3, Jul-Aug 84)	
	ESIONSKUI SSK: KRIHIIA, NO 3, Jul-Aug 04/	0
	Carbon Fiber - New Electrode Material in Electrochemical	
	Analysis Methods. Background Currents	
	(A. N. Doronin, G. G. Muntyanu; ZHURNAL ANALITICHESKOY KHIMII, No 4, Apr 84)	8
	Interpretation of Chlorohydrocarbon Pyrograms	
	(V. Ye. Stepanenko, et al.; ZHURNAL ANALITICHESKOY	
	KHIMII, No 4, Apr 84)	9
BIOCE	HEMISTRY	
	Synthesis of Inorganic Matrices for Immobilization of	
	Enzymes by Chemical Assembly and Studies of Their Properties (I. M. Gimanova, V. N. Postnov; ZHURNAL PRIKLADNOY	
	KHIMII, No 6, Jun 84)	10
	Manage in 0, Juli 047	10

CATALYSTS

IR-Spectroscopic Study of Complex Catalyst Tri-Iso- Butylaluminum-Water-Zinc Acetylacetonate Used in Polymerization of Propylene Oxide	
(I. V. Ikonitakiy, et al.; VYSOKOMOLEKULYARNYYE SOYEDINENIYA, No 8, Aug 84)	11
Catalysis on Preliminary Irradiated Solids and in	
Ionizing Radiation Field	
(S. V. Markevich; ZHURNAL FIZICHESKOY KHIMII,	
No 5, May 84)	11
Influence of Gamma Radiation in Process of Aluminosilicate	
Catalyst Synthesis on Its Activity	
(M. P. Sarafanova, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 5, May 84)	12
Composition of Rhodium-Ruthenium Skeletal Catalysts as	
Function of Conditions of Leaching of Aluminum	
(T. M. Grishina, L. N. Nesterenko; ZHURNAL	
FIZICHESKOY KHIMII, No 4, Apr 84)	12
Studying Interaction of Hydrogen With Nickel Catalysts	
by Thermal Desorption	
(L. V. Babenkova, I. N. Blagoveshchenskaya;	
ZHURNAL FIZICHESKOY KHIMII, No 4, Apr 84)	13
Group VI Metals as High Hydrogen Pressure Hydrogenation	
Catalysts	
(D. V. Sokol'skiy, A. Ualikhanova; ZHURNAL	
FIZICHESKOY KHIMII, No 4, Apr 84)	14
Oxidation of Methanol on Silver Catalysts With	
Impurities Present	
(O. D. Filicheva, L. N. Kurina; ZHURNAL FIZICHESKOY	
KHIMII, No 4, Apr 84)	14
Thermal Programming of Hydrogen Desorption From Surface	
of Promoted Platinum Catalysts	
(Ye. P. Demenkova, Yu. V. Fomichev; ZHURNAL	
FIZICHESKOY KHIMII, No 4, Apr 84)	15
ribionson kninii, no 4, apr 04/	13
Vapor Phase Isomerization of Cyclohexanoneoxime to	
E-Caprolactam on Bizeolite-Containing Catalysts	
(L. P. Shirinskaya, et al.; DOKLADY AKADEMII	
NAUK BSSR, No 7, Jul 84)	15
Activity and Dispersion of Palladium in Aluminopalladium Catalyst	
(L. S. Kravchuk, et al.; IZVESTIYA AKADEMII NAUK	
BSSR: SERIYA KHIMICHESKIKH NAUK, No 3, May-Jun 84)	16

	Determination of Surface of Metallic Copper in Copper-	
	Magnesium Catalysts of Various Compositions	
	(M. A. Sidel'tseva, B. V. Yerofeyev; IZVESTIYA	
	AKADEMII NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 3,	
	May-Jun 84)	16
	Thermal Transformation in Production of Sintered Iron-Cobalt	
	Ammonia Synthesis Catalysts	
	(V. S. Komarov, et al.; IZVESTIYA AKADEMII NAUK	
	BSSR: SERIYA KHIMICHESKIKH NAUK, No 3, May-Jun 84)	17
	Oxidation of Pentadecane in Presence of Binary Catalysts	
	Based on Metal Stearates	
	(T. G. Kosmacheva, et al.; IZVESTIYA AKADEMII	
	NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 3,	
	May-Jun 84)	17
	Activity of Nickel Catalysts Obtained From Ni2Al3	
	Intermetallide	
	(L. G. Nishchenkova, et al.; IZVESTIYA VYSSHIKH	
	UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 6, Jun 84)	18
	Some Regularities of Heterogeneous Catalytic Oxidation	
	of Carbon Monoxide on Metal Catalysts	
	(V. A. Ostapyuk, et al.; DOKLADY AKADEMII NAUK	
	UKRAINSKOY SSR, No 6, Jun 84)	19
СНЕМ	ICAL INDUSTRY	
Ottes	TORE TREESTRE	
	Trends in Georgian Chemical Industry	
	(Georgiy Tsitsishvili; ZARYA VOSTOKA, 10 Jul 84)	20
	Major Trends in Study of Processes in Liquid Cryogenic	
	Systems	
	(N. V. Filin, A. M. Domashenko; KHIMICHESKOYE	
	I NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	24
	Manufacture of Spherical Isothermal Reservoirs for	
	Storage of Cryogenic Products	
	(B. O. Belorusets, et al.; KHIMICHESKOYE I	
	. NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	25
	Non Consequents Champes and Contitionation Continues	
	New Cryogenic Storage and Gasification System Evaporators	
	(V. K. Orlov, et al.; KHIMICHESKOYE I NEFTYANNOYE	25
	MASHINOSTROYENIYE, No 7, Jul 84)	25
	Study of Processes of Heat Transfer to Helium-II	
	(V. P. Belyakov, et al.; KHIMICHESKOYE I	
	NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	26

	Separation of Air	
	(N. A. Fedoseteva, et al.; KHIMICHESKOYE I	
	NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	26
	New Series of High Pressure Pumps for Cryogenic Fluids	
	(V. M. Braun, et al.; KHIMICHESKOYE I NEFTYANNOYE	
	MASHINOSTROYENIYE, No 7, Jul 84)	27
	PROBLEM DE PROPERTE DE PROPERT	2,
	Vacuum Cryogenic Pumps Based on Independent Microcryogenic Systems	
	(L. L. Shteyn, et al.; KHIMICHESKOYE I NEFTYANNOYE	
	MASHINOSTROYENIYE, No 7, Jul 84)	27
	Studies of Nitrogen-Freon Mixture Enthalpy	
	(G. N. Anikeyev, et al.; KHIMICHESKOYE I NEFTYANNOYE	
	MASHINOSTROYENIYE, No 7, Jul 84)	28
	Adsorption Methods of Purifying Air and Its Separation Products	
	(Ye. V. Vagin, S. S. Petukhov; KHIMICHESKOYE I	
	NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	28
	Intensification of Mass Transfer in Gas-Liquid Systems	
	Upon Introduction of Finely Dispersed Solid Phase	
	(L. I. Barkar, N. A. Nikolayev; KHIMICHESKOYE I	
	NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	29
	Increasing Durability and Reliability of Operation of	
	Friction Units in Chemical Product Conveyors	
	(N. D. Korotenko, et al.; KHIMICHESKOYE I	
	NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	29
	METITARNOIE PASHINOSIROIENIIE, NO /, Jul 64/	23
	Structural Materials for Reaction Equipment Used in	
	Synthesis of Acetaldehyde and Propylene Oxide	
	(VI. D. Zaritskiy, M. P. Mulyava; KHIMICHESKOYE	
	I NEFTYANNOYE MASHINOSTROYENIYE, No 7, Jul 84)	30
DAL	GASIFICATION	
	Paramagnetism and Associative Interaction of Products	
	of Reductive Alkylation of Coals	
	(R. O. Kochkanyan, et al.; DOKLADY AKADEMII NAUK	
	UKRAINSKOY SSR, SERIYA B: GEOLOGICHESKIYE,	
	KHIMICHESKIYE I BIOLOGICHESKIYE NAUKI, No 7, Jul 84)	31
	Hydrogenization and Conversion of Bulgarian Shale From	
	Borov Dol Deposit	
	(Lia Nappa, et al.; IZVESTIYA AKADEMII NAUK	
	ESTONSKOY SSR: KHIMIYA, No 3, Jul-Aug-Sep 84)	31

Composition of Volatile Products Formed Under Oxidation	
of Kukersite Kerogen	
(Yevgeniya Bondar', R. Veski; IZVESTIYA AKADEMII	0.0
NAUK ESTONSKOY SSR: KHIMIYA, No 3, Jul-Aug-Sep 84)	32
Study of Chemical Raw Material Qualities of Bulgarian	
Fuel Shale From Krasava Deposit, Part 1: General	
Characteristics of Shale and Bitumoids	
(R. Veski, et al.; IZVESTIYA AKADEMII NAUK	
ESTONSKOY SSR: KHIMIYA, No 3, Jul-Aug-Sep 84)	33
Specifics of Organic Matter in Turovskiy Depost Fuel Shales	
(I. I. Lishtvan, et al.; DOKLADY AKADEMII NAUK BSSR,	
No 7, Jul 84)	33
Radiographic Study of Changes in Structure of Anthracites	
After Heat Treatment in Current of Nitrogen	
(A. S. Tatishchev, et al.; ZHURNAL PRIKLADNOY	
KHIMII, No 6, Jun 84)	34
Correlation Bonds Between Chemical Elements in Dicthioneme Shales	
(Yu. L. Khaldna, et al.; KHIMIYA TVERDOGO TOPLIVA,	
No 4, Jul-Aug 84)	34
Results of Hydrolysis of Fusinite Brown Coal	
(Z. M. Perednikova, et al.; KHIMIYA TVERDOGO	
TOPLIVA, No 4, Jul-Aug 84)	35
Brown Coal as Natural Electron Exchanger	
(I. I. Kossov, et al.; KHIMIYA TVERDOGO TOPLIVA,	
No 4, Jul-Aug 84)	35
Connection of Solvent Properties With Extraction	
Capability With Respect to Menilite Shales and Coal	
(R. G. Makitra, et al.; KHIMIYA TVERDOGO TOPLIVA,	
No 4, Jul-Aug 84)	36
Supercritical Dissolution of Kansk-Achinsk Basin	
Brown Coal	
(V. M. Kirilets, et al.; KHIMIYA TVERDOGO TOPLIVA,	
No 4, Jul-Aug 84)	37
Hydrogenization of Coal in Presence of Catalysts on	
Carbon Carrier	
(T. N. Yashina, et al.; KHIMIYA TVERDOGO TOPLIVA,	
No 4, Jul-Aug 84)	37

COMBUSTION

Experimental Study of Concentration Limits of Ignition	
in Hydrogen-Oxygen-Diluent Mixtures	
(Yu. N. Shebeko, et al.; ZHURNAL FIZICHESKOY	
KHIMII, No 4, Apr 84)	39
Specifics of Combustion of Rich Mixtures of Organic	
Compounds With Air and Upper Concentration Limits	
of Ignition	
(Yu. N. Shebeko; ZHURNAL FIZICHESKOY KHIMII,	
No 4, Apr 84)	39
ELECTROCHEMISTRY	
Electrochemical and Photoelectrochemical Processes on	
Electrons Based on Anisotypical Silicon-Titanium	
Dioxide Heterojunction	
(A. I. Kulak, S. K. Poznyak; ELEKTROKHIMIYA,	
No 7, Jul 84)	41
Electrocatalytic Activity of Coal With Various Structures	
in Oxygen Reduction Reaction	
(G. V. Shteynberg, et al.; ELEKTROKHIMIYA, No 7,	
Jul 84)	41
FERTILIZERS	
Capacities Under Construction	
(SEL'SKAYA ZHIZN', 5 Jul 84)	43
Fertilizer Production Over Plan	
(V. Pryadko; SOTSIALISTICHESKAYA INDUSTRIYA,	
5 Jul 84)	43
FOOD TECHNOLOGY	
Production of High Quality Protein-Vitamin Concentrates	
(R. V. Katrush, V. A. Garbalinskiy; KHIMIYA I	
TEKHNOLOGIYA TOPLIV I MASEL, No 6, Jun 84)	44
FREE RADICALS	
Free Radicals Generated During Mechanical Destruction	
of Polypeptides	
(A. M. Dubinskaya; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 8, Aug 84)	45
Interaction of Heterogeneous System Components During	
Irradiation and Its Influence on Radical Formation	
(A. G. Kotov, N. F. Kotova; ZHURNAL FIZICHESKOY	
KHIMII, No 5, May 84)	45

INORGANIC COMPOUNDS

	Separation of Nitric Acid From Aqueous Alkali Metal Solutions by Dialysis	
	(E. K. Spirin, et al.; ZHURNAL PRIKLADNOY KHIMII,	
	No 6, Jun 84)	47
	Study of Properties of Thermal Insulating Materials Based on Potassium-Silicate Cements	
	(N. F. Fedorov, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA,	
	No 6, Jun 84)	48
ION E	XCHANGE PHENOMENA	
	Electrode Properties of Membranes Based on Dialkyl	
	Derivatives of Dibenzo-18-Crown-6 (Sh. K. Norov, et al.; ZHURNAL ANALITICHESKOY	
	KHIMII, No 4, Apr 84)	49
ORGAN	OMETALLIC COMPOUNDS	
	Tin-Organic Carbamyldichyanomethanides, Nitrosocarbamycyano-	
	methanides and Carbamylcyanoamides	
	(V. V. Skopenko, et al.; DOKLADY AKADEMII NAUK	
	UKRAINSKOY SSR, SERIYA B: GEOLOGICHESKIYE, KHIMICHESKIYE I BIOLOGICHESKIYE NAUKI, No 7, Jul 84)	50
	Optimizing Low Temperature Reaction for Synthesis of	
	Organometallic Compounds (G. A. Domrachev, et al.; ZHURNAL PRIKLADNOY	
	KHIMII, No 6, Jun 84)	50
PESTI	CIDES	
	Gas Chromatographic Determination of Chlorine-Containing	
	Pesticides in Atlantic Ocean Surface Waters	
	(G. V. Golovkin, et al.; ZHURNAL ANALITICHESKOY	
	KHIMII, No 4, Apr 84)	52
PETRO	LEUM PROCESSING TECHNOLOGY	
	Power Engineering: Steps Toward Future	
	(N. Zaporozhets; SOTSIALISTICHESKAYA INDUSTRIYA,	
	6 Sep 84)	53
	Storage Tank for Liquefied Propane	
	(A. Korolev; SOTSIALISTICHESKAYA INDUSTRIYA,	56

Intermolecular Interaction in Polypropylene Fibers With Graft Polystyrene	
(N. R. Prokopchuk, et al.; IZVESTIYA AKADEMII	
NAUK BSSR: SERIYA KHIMICHESKIKH NAUK, No 3,	
May-Jun 84)	87
imy out on, it is in the second of the secon	0,
Production and Electrochemical Properties of Gradient	
Membranes Based on Mixture of Butylmethacrylate and	
Acrylic Acid Copolymer Plus Poly-4-Vinylpyridine	
(V. P. Zubov, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 7, Jul 84)	88
Synthesis of Polyamide Using Bis-N-Oxysuccinimide Esters of Dicarboxylic Acids	
(R. D. Katsarava, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 7, Jul 84)	89
SOIEDINENTIA, NO /, Sui 04/	0,3
Correlation Analysis of Polymer Gas Permeability Parameters	
(V. V. Teplyakov, S. G. Durgar'yan; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 7, Jul 84)	89
Kinetics of Relaxation of Impurity Molecules Based on	
Reactivity in Solid Polymers	
(I. R. Mardaleyshvili, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 7, Jul 84)	90
Specifics of Polymerization of Certain Perfluorinated	
Aromatic and Alicyclic Compounds in a Glow Discharge	
(A. B. Gil'man, et al.; VYSOKOMOLEKULYARNYYE	01
SOYEDINENIYA, No 7, Jul 84)	91
Use of X-Ray Diffraction Method to Study Interaction of	
Plasticizers With Crystalline Areas of Nitrate Cellulose	
(A. F. Sviridov, et al.; VYSOKOMOLEKULYARNYYE	
SOYEDINENIYA, No 7, Jul 84)	91
Accumulation of Space Charge in Polymers Upon Bombardment	
With Fast Electrons	
(V. A. Dyrkov, O. B. Yevdokimov; ZHURNAL	
FIZICHESKOY KHIMII, No 5, May 84)	92
Synthesis and Properties of Polyarylates Containing Silicon	
(L. K. Burygin, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH	
ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA,	
No 6, Jun 84)	92
Copolymerization of Isobutylene With Trimethylvinyloxysilane	
(I. F. Gladkikh, et al.; IZVESTIYA VYSSHIKH UCHEBNYKH	
ZAVEDENIY: KHIMIYA I KHIMICHESKAYA TEKHNOLOGIYA,	0.3
No 6, Jun 84)	93

	Aging of Industrial Oils 1-20A and IGP-38 During Use	
	(A. A. Gureyev, et al.; KHIMIYA I TEKHNOLOGIYA	
	TOPLIV I MASEL, No 6, Jun 84)	75
	Oxidation of m-Xylene in Liquid Phase in Presence of	
	Cobalt Bromide Catalyst	
	(F. F. Shcherbina; DOKLADY AKADEMII NAUK UKRAINSKOY	
	SSR, SERIYA B: GEOLOGICHESKIYE, KHIMICHESKIYE I	
	BIOLOGICHESKIYE NAUKI, No 7, Jul 84)	76
	Effectiveness of Treatment of Filtering Seam Zone in	
	Petroleum Boreholes	
	(G. A. Lesovoy, et al.; NEFTYANAYA I GAZOVAYA	
	PROMYSHLENNOST', No 2, Apr-Jun 84)	76
	Borehole Testing Experience at 'Ukrneft' Association	
	(B. T. Shemelyak, et al.; NEFTYANAYA I GAZOVAYA	
	PROMYSHLENNOST', No 2, Apr-Jun 84)	77
	Influence of Jointing of Collectors on Working of Oil	
	Deposits	
	(V. F. Lantsberg; NEFTYANAYA I GAZOVAYA	
	PROMYSHLENNOST', No. 2, Apr-Jun 84)	77
	Prediction of Slope Processes Along Path of Pipelines	
	(N. N. Kostyuchenko, V. I. Gayduchenko;	
	NEFTYANAYA I GAZOVAYA PROMSYLENNOST', No 2,	
	Apr-Jun 84)	78
	Apt-out 04/	70
PHAR	RMACOLOGY AND TOXICOLOGY	
	New Sesquiterpene Lactones From Central Kazakhstan Plants	
	(A. D. Kagarlitskiy, S. M. Adekenov; IZVESTIYA	
	AKADEMII NAUK KAZAKHSKOY SSR: SERIYA KHIMICHESKAYA,	
	No 4, Jul-Aug 84)	79
	Synthetic Studies of Derivatives of Acetylformamidoxime	
	in Order to Obtain Anti-Tumor Compounds	
	(I. A. Poplavskaya, et al.; IZVESTIYA AKADEMII	
	NAUK KAZAKHSKOY SSR: SERIYA KHIMICHESKAYA,	
	No 4, Jul-Aug 84)	79
	Structural-Sorption Properties of Activated Type KAU Coal	
	Used for Medical Purposes	
	(V. V. Strelko, et al.; ZHURNAL PRIKLADNOY KHIMII,	
	No 6, Jun 84)	80
	Synthesis and Biological Activity of 3-Perfluoroacyoxy-	
	3,3,3-Trifluoro- and 3-Fluoropropylsilitrans	
	(M. G. Voronkov, et al.; KHIMIKO-FARMATSEVTICHESKIY	
	ZHURNAL, No 7, Jul 84)	80

	Synthesis and Local Anesthetic Activity of 6-[ω-Amino-ω- Arylalkyl]-Benzo-1,4-Dioxanes	
	(V. K. Daukshas, et al.; KHIMIKO-FARMATSEVTICHESKIY ZHURNAL, No 7, Jul 84)	81
	Synthesis and Biological Activity of N-Substituted	
	2-Pyrrolidones	
	(T. V. Stezhko, et al.; KHIMIKO-FARMATSEVTICHESKIY	
	ZHURNAL, No 7, Jul 84)	81
	Synthesis and Study of Antimicrobic Activity of	
	Diacetylene Fatty Acid Esters	
	(A. G. Makhsumov, M. S. Ergashev; KHIMIKO- FARMATSEVTICHESKIY ZHURNAL, No 7, Jul 84)	82
	Synthesis and Biological Activity of Bisthiosemicarbazones	
	of 3-Ethoxy-2-Oxobutyraldehyde and Their Complexes With Cu (2+)	
	(E. R. Dilanyan, et al.; KHIMIKO-FARMATSEVTICHESKIY	
	ZHURN/L, No 7, Jul 84)	82
POLYME	ERS AND POLYMERIZATION	
	Effect of Thermal Treatment of Molecular Mobility in	
	Polyvinylidene Fluoride	
	(L. I. Feklina, et al.; VYSOKOMOLEKULYARNYYE	
	SOYEDINENIYA, No 8, Aug 84)	84
	Iminodiacetate Derivatives of Polyvinyluenzylamine and	
	Their Chelate Forming Properties	
	(Ye. Ye. Yergozhin, et al.; VYSOKOMOLEKULYARNYYE	04
	SOYEDINENIYA, No 8, Aug 84)	84
	Thermal Destruction of Vinyl Chloride Copolymers With	
	Propylene	
	(V. V. Lisitskiy, et al.; VYSOKOMOLEKULYARNYYE	85
	SOYEDINENIYA, No 8, Aug 84)	0)
	Microphase Structure of Ion Containing Polymethanoureylenes	
	(Yu. S. Lipatov, et al.; VYSOKOMOLEKULYARNYYE	01
	SOYEDINENIYA, No 8, Aug 84)	86
	Permeability, Diffusion and Absorption of SO2 in	
	Polyvinyltrimethysilane Membranes	
	(Yu. P. Yampol'skiy, et al.; VYSOKOMOLEKULYARNYYE	06
	SOYEDINENIYA, No 8, Aug 84)	86
	Shrinkage Phenomena in Formation of Capron Microfiltration Membranes	
	(T. A. Korshunova, et al.; IZVESTIYA AKADEMII NAUK	
	BSSR: SERIYA KHIMICHESKIKH NAUK. No 3. May-Jun 84)	87

87
9 /
88
0.0
89
39
90
91
, 1
)1
2
2
2
13

		sis and Properties of Ammonium Polymers Based on Obenzylbromide Copolymers	
		(N. S. Salidzhanova, et al.; IZVESTIYA VYSSHIKH	
		UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
		TEKHNOLOGIYA, No 6, Jun 84)	94
	Copoly	merization of Benzaldehyde With Acrylonitrile	
		(A. A. Durgaryan, et al.; ARMYANSKIY KHIMICHESKIY	
		ZHURNAL, No 6, Jun 84)	94
		nce of Polyconjugate Systems on Thermal Stability olychloroprene	
	OI I	(V. G. Kharatyan, et al.; ARMYANSKIY KHIMICHESKIY	
		ZHURNAL, No 6, Jun 84)	95
		ZHUKNAL, NO 0, Juli 04/	93
RADIAT	ION CHE	MISTRY	
	Radiat	ion-Optical Properties of Coatings Made of Zircon	
		(M. M. Malov, et al.; ZHURNAL FIZICHESKOY KHIMII,	
		No 5, May 84)	96
RUBBER	AND EL	ASTOMERS	
	Rubber	Properties Made to Order	
		(V. Kremer; SOTSIALISTICHESKAYA INDUSTRIYA, 4Sep 84)	97
	Intern	ational Conference on Raw and Cured Rubber	
		(SOTSIALISTICHESKAYA INDUSTRIYA, 5 Sep 84)	100
		of Modifying Pulverized Vulcanizer With	
	S-Ni	trosoaromatic Amines on Cold-Resistance of	
	Resi	ns Based on Cis-Polybutadiene	
		(G. I. Kostrykina, et al.; KAUCHUK I REZINA,	
		No 8, Aug 84)	101
		ure and Properties of Isoprene Rubber Obtained	
	Using	g Low-Temperature Complex Catalyst	
		(Ye. P. Piskareva, et al.; KAUCHUK I REZINA,	
		No 8, Aug 84)	101
	Use of	Wollastonite As Filler of Resin Mixtures	
		(A. Ibadullayev, et al.; KAUCHUK I REZINA,	
		No 8, Aug 84)	102
		of Cold Curing and Adhesion to Metal of Hydrazide	
	Rubbe	er Compositions With Epoxy Resins	
		(M. S. Ryabova, et al.; ZHURNAL PRIKLADNOY KHIMII, No 6, Jun 84)	103
		KHIMII, NO 0, Juli 04/	103
		cation of Cis-Polyisoprene Dispersions With	
		trosodiphenylamine, Structure and Properties of Thus Produced	
		(Z. N. Tarasova, et al.; KAUCHUK I REZINA, No 6,	
		Tun 9/1	103

	Stabilization of Chlorine-Containing Polymers	
	(V. A. Glazolev, et al.; KAUCHUK I REZINA,	
	No 6, Jun 84)	104
	Adhesive Properties of Rubbers Based on Combination of	
	Chlorobutyl Rubber and Highly Saturated Elastomers	
	(N. S. Maksimova, A. G. Shvarts; KAUCHUK I REZINA,	
	No 6, Jun 84)	104
	Work of Rupture of Rubbers Under Various Loading Conditions	
	(Yu. S. Zuyev, T. M. Shtern; KAUCHUK I REZINA,	
	No 6, Jun 84)	105
	Structuring of Raw Rubbers With Alkylcarboxymethylmethacrylate Groups With Calcium Hydroxide	
	(V. S. Marchenko; KAUCHUK I REZINA, No 6, Jun 84)	106
	Mass of Low Profile Truck Tire Treads With Various Relative Tread Depths	
	(M. I. Rekitar, V. P. Timofeyev; KAUCHUK I REZINA,	
	No 6, Jun 84)	106
	10 0, 0an 04,	200
VATER	TREATMENT	
	Study of Purification of Ammonium-Containing Waste Water	
	(Yu. P. Kudryavskiy, et al.; IZVESTIYA VYSSHIKH	
	UCHEBNYKH ZAVEDENIY: KHIMIYA I KHIMICHESKAYA	
	TEKHNOLOGIYA, No 6, Jun 84)	108
	Using Ozone in Processes of Deep Purification of Natural	
	and Waste Waters	
	(P. I. Shaboldo, et al.; ZHURNAL PRIKLADNOY KHIMII,	100
	No 6, Jun 84)	108
	Determination of Reagent Doses to Stabilize Water Before	
	Desalination by Hyperfiltration	
	(F. N. Karelin, et al.; KHIMIYA I TEKHNOLOGIYA VODY,	
	No 3, May-Jun 84)	109
	Formation and Powerse Comptic Properties of Dynamic	
	Formation and Reverse Osmotic Properties of Dynamic Polyacrylamide Membrane	
	(A. T. Pilipenko, et al.; KHIMIYA I TEKHNOLOGIYA	
	VODY, No 3, May-Jun 84)	110
	1001, No 3, May-0011 04/	110
	Role of Ion-Electrostatic Component in Splitting Pressure	
	During Pressurized Flotation of Dispersed Impurities	
	(Yu. F. Bazhenov, T. Z. Sotskova; KHIMIYA I	
	TEKHNOLOGIYA VODY, No 3, May-Jun 84)	110

(Yu. D. Dolmatov; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	Sorption of Phosphorus and Fluoride Ions From Aqueous	
No 3, May-Jun 84)	Solutions by Hydrated Titanium Dioxide	
Equilibrium Non-Ion Exchange Distribution of Sulfuric Acid Between Solution and Swollen Cationites KU-2 and KB-4 in H-Form (A. M. Koganovskiy, L. I. Tomchuk; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	(Yu. D. Dolmatov; KHIMIYA I TEKHNOLOGIYA VODY,	
Between Solution and Swollen Cationites KU-2 and KB-4 in H-Form (A. M. Koganovskiy, L. I. Tomchuk; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	No 3, May-Jun 84)	111
Removal of Iron From Water in Suspended Pyrolucite Layer by Electrolysis (O. A. Mumina, et al.; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	Between Solution and Swollen Cationites KU-2 and KB-4 in	
Removal of Iron From Water in Suspended Pyrolucite Layer by Electrolysis (O. A. Mumina, et al.; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	(A. M. Koganovskiy, L. I. Tomchuk; KHIMIYA I	
by Electrolysis (O. A. Mumina, et al.; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)		112
No 3, May-Jun 84)		
No 3, May-Jun 84)	(O. A. Mumina, et al.; KHIMIYA I TEKHNOLOGIYA VODY,	
Platinum Electrode (V. V. Goncharuk, V. I. Sapsay; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	No 3, May-Jun 84)	112
Mechanism of Washing of High Speed Filters and Methods of Its Intensification (P. A. Grabovskiy; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)		
Mechanism of Washing of High Speed Filters and Methods of Its Intensification (P. A. Grabovskiy; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	(V. V. Goncharuk, V. I. Sapsay; KHIMIYA I	
Its Intensification (P. A. Grabovskiy; KHIMIYA I TEKHNOLOGIYA VODY, No 3, May-Jun 84)	TEKHNOLOGIYA VODY, No 3, May-Jun 84)	113
No 3, May-Jun 84)	Mechanism of Washing of High Speed Filters and Methods of Its Intensification	
No 3, May-Jun 84)	(P. A. Grabovskiy; KHIMIYA I TEKHNOLOGIYA VODY,	
Nonionogenic Surfactant	No 3, May-Jun 84)	114
(V. F. Karpukhin, et al.: KHIMIKA-FARMATSEVTICHESKIY		
/ · · · · · · · · · · · · · · · · · · ·	(V. F. Karpukhin, et al.; KHIMIKA-FARMATSEVTICHESKIY	
ZHURNAL, No 7, Jul 84)		114

END OF FICHE DATE FILMED

5 Feb 1985